



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0892

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / October 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/23/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0892-01	Sample ID: R 94011 Sample Type: Drinking Water	Time Collected: 10/22/2013 08:15	Sampling Point: Bio Lab Sink	
K-40	EPA 901.1	9.46 +/- 17.1	80.0	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164

Richmond, CA 94804

510-620-2911

Date Received

10-23-13

Lab No. (Leave Blank)

13-0892

Date & Time Sampled

10/22/13 - 0815

Serial Number

R 94011

Collector Information

Name: Rich Treinen

Dept./Branch: PO Box 56

Address: Avila Beach, CA 93424

Telephone No.: 805-545-6481

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Sample Information

System Name / Facility:

BIO LAB

Sampling Point (s):

DW1

System No.:

Billing Agency

☐ DWFOB ()☐ RHB☐ RWQCB ()☐ DTSC☐ DWTPB☐ FDB☐ DWR☐ CDFG☐ EMB☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☒ Drinking Water☐ Groundwater☐ Surface Water☐ Wastewater☐ Raw☐ Water Treatment Plant (WTP)☐ Distribution System☐ Point of Use (POU)☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted☐ Air Filters

Date/Time

☐ Seawater☐ Sludge (Semi-solid Samples)

Finishing: _____

☐ Milk☐ Soil/Sediment

Starting: _____

☐ Wipes☐ Biota (Type): _____Net (M³) _____☐ Radon Canister☐ Other: _____☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____

Iced/Frozen: _____

Other: _____

☐ Field Measurement: _____ mR/hr☐ Radionuclide(s), if known: _____☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha☐ Gross Beta☒ Gamma Scan☐ Total Uranium☐ Total Beta (LSC)☐ NORM (Gamma)☐ Total Radium☐ Tritium (³H)☐ Isotopic Americium / Curium☐ Radium-226☐ Carbon-14☐ Isotopic Plutonium☐ Radium-228☐ Iodine-131☐ Isotopic Thorium☐ Radon-222☐ Strontium-89, 90☐ Isotopic Uranium☐ Other (Specify): _____☐ Nickel-63☐ Iron-55

CHAIN OF CUSTODY

1. Date 10/22/13

Time Custody Received 0815

Name (Print) Rich Treinen

Organization PG&E

Signature [Signature]

Date 10/22/13

Time Custody Released 1700

2. Date

Time Custody Received

Name (Print)

Organization

Signature

Date

Time Custody Released

3. Date 10-23-13

Time Custody Received 10:00

Name (Print) VA

Organization DWRLB

Signature [Signature]

Date

Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable☐ Broken Container☐ Leaked in Transit☐ Improper Container☐ Holding Time Exceeded☐ Sample Not Cooled☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling☐ Added in Laboratory☐ Not Added☐ Not Applicable



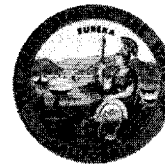
State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0893

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / October 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/23/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0893-01	Sample ID: R 96391	Time Collected: 10/22/2013 08:15	Sampling Point: Bio Lab Sink	
	Sample Type: Drinking Water			
Tritium	EPA 906.0	-9.36 +/- 171	294	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

10-23-13

Lab No. (Leave Blank)

13-0493

Date & Time Sampled

10/22/13 - 0815

Serial Number

R 96391

Collector Information

Name: Rick Treinen
Dept./Branch: PO Box 56
Address: Avila Beach, CA 93424

Telephone No.: 805-545-6481

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility: B10 LAB
Sampling Point (s): DW1

System No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters ☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing: _____ Date/Time: _____
Starting: _____
Net (M³) _____
☐ Air Charcoal Cartridge ☐ Milk ☐ Soil/Sediment
☐ Wipes ☐ Biota (Type): _____
☐ Radon Canister ☒ Other: Tritium Sample

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☒ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1.	Date: 10/22/13 Time Custody Received: 0815	Name (Print): Rick Treinen Organization: PG&E	Signature: [Signature]	Date: 10/22/13 Time Custody Released: 1700
2.	Date: _____ Time Custody Received: _____	Name (Print): _____ Organization: _____	Signature: _____	Date: _____ Time Custody Released: _____
3.	Date: 10-23-13 Time Custody Received: 10:00	Name (Print): J.A. Organization: DWRLB	Signature: [Signature]	Date: _____ Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0890

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / October 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/23/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0890-01	Sample ID: R 96387	Time Collected: 10/22/2013 08:00	Sampling Point: Diablo Creek	
	Sample Type: Surface Water			
K-40	EPA 901.1	9.00 +/- 12.0	55.9	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 10-23-13	Lab No. (Leave Blank) 13-0890
	Date & Time Sampled 10/22/13 - 0800	Serial Number R 96387
Collector Information Name: TOM HOOK Dept./Branch: P.O. BOX 56 Address: AVILA BEACH, CA 93424 Telephone No.: (805) 545-4409	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: DIABLO GREEN Sampling Point (s): 552 System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time _____ ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge

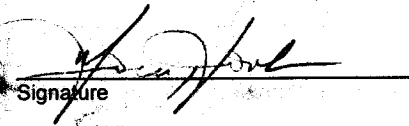
COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

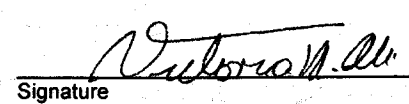
- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☒ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | |
|----|--|---|---|---|
| 1. | 10/22/13
Date
0800
Time Custody Received | TOM HOOK
Name (Print)
PGE
Organization | 
Signature | 10/22/13
Date
1700
Time Custody Released |
| 2. | _____
Date

Time Custody Received | _____
Name (Print)

Organization | _____
Signature | _____
Date

Time Custody Released |
| 3. | 10-23-13
Date
10:00
Time Custody Received | UA
Name (Print)
DWRLB
Organization | 
Signature | _____
Date

Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0891

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / October 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/23/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0891-01	Sample ID: R 94015	Time Collected: 10/22/2013 08:00	Sampling Point: Diablo Creek	
	Sample Type: Surface Water			
Tritium	EPA 906.0	-113 +/- 160	280	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164

Richmond, CA 94804

510-620-2911

Date Received

10-23-13

Lab No. (Leave Blank)

13-0891

Date & Time Sampled

10/22/13 - 0800

Serial Number

R 94015

Collector Information

Name: TOM HOOK

Dept./Branch: P.O. BOX 56

Address: 1114 BRACI, CA 93424

Telephone No.: (805) 545-4409

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Sample Information

System Name / Facility: DIABLO CREEK

Sampling Point (s): 552

System No.:

Billing Agency

☐ DWFOB ()☐ RHB☐ RWQCB ()☐ DTSC☐ DWTPB☐ FDB☐ DWR☐ CDFG☐ EMB☐ Other (Specify)

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water☐ Groundwater☒ Surface Water☐ Wastewater☐ Raw☐ Water Treatment Plant (WTP)☐ Distribution System☐ Point of Use (POU)☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted☐ Air Filters

Date/Time

☐ Seawater☐ Sludge (Semi-solid Samples)

Finishing:

☐ Milk☐ Soil/Sediment

Starting:

☐ Wipes☐ Biota (Type):Net (M³)☐ Radon Canister☒ Other: TRITIUM SAMPLE☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added:

Iced/Frozen:

Other:

☐ Field Measurement: mR/hr☐ Radionuclide(s), if known:☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha☐ Gross Beta☐ Gamma Scan☐ Total Uranium☐ Total Beta (LSC)☐ NORM (Gamma)☐ Total Radium☒ Tritium (³H)☐ Isotopic Americium / Curium☐ Radium-226☐ Carbon-14☐ Isotopic Plutonium☐ Radium-228☐ Iodine-131☐ Isotopic Thorium☐ Radon-222☐ Strontium-89, 90☐ Isotopic Uranium☐ Other (Specify):☐ Nickel-63☐ Iron-55

CHAIN OF CUSTODY

1. 10/22/13
Date
0800
Time Custody ReceivedTOM HOOK
Name (Print)
PG IE
Organization

Signature

10/22/13
Date
1700
Time Custody Released2. Date
Time Custody ReceivedName (Print)
Organization

Signature

Date
Time Custody Released3. 10-23-13
Date
10:00
Time Custody ReceivedName (Print)
Organization

Signature

Date
Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable☐ Broken Container☐ Leaked in Transit☐ Improper Container☐ Holding Time Exceeded☐ Sample Not Cooled☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling☐ Added in Laboratory☐ Not Added☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0888

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / October 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/22/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0888-01	Sample ID: R 94074 Sample Type: Seawater	Time Collected: 10/21/2013 07:45	Sampling Point: Outfall Water	
K-40	EPA 901.1	231 +/- 18.3	73.3	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch
 850 Marina Bay Parkway, G164
 Richmond, CA 94804
 510-620-2911

Date Received

10-22-13

Lab No. (Leave Blank)

13-0488

Date & Time Sampled

10/21/13 - 0745

Serial Number

R 94074

Collector Information

Name:

Dept./Branch:

Address:

Tom Hook
 P.O. Box 56
 Avila Beach, CA 93424

Telephone No.:

(805) 545-4409

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Sample Information

System Name / Facility:

Sampling Point (s):

DCPP OUTFALL
 OUT

System No.:

Billing Agency

☐ DWFOB ()☐ RHB☐ RWQCB ()☐ DTSC☐ DWTPB☐ FDB☐ DWR☐ CDFG☐ EMB☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water☐ Groundwater☐ Surface Water☐ Wastewater☐ Raw☐ Water Treatment Plant (WTP)☐ Distribution System☐ Point of Use (POU)☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted☐ Air Filters

Date/Time

☒ Seawater☐ Sludge (Semi-solid Samples)

Finishing: _____

☐ Milk☐ Soil/Sediment

Starting: _____

☐ Wipes☐ Biota (Type): _____Net (M³) _____☐ Radon Canister☐ Other: _____☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____

Iced/Frozen: _____

Other: _____

☐ Field Measurement: _____ mR/hr☐ Radionuclide(s), if known: _____☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha☐ Gross Beta☒ Gamma Scan☐ Total Uranium☐ Total Beta (LSC)☐ NORM (Gamma)☐ Total Radium☐ Tritium (³H)☐ Isotopic Americium / Curium☐ Radium-226☐ Carbon-14☐ Isotopic Plutonium☐ Radium-228☐ Iodine-131☐ Isotopic Thorium☐ Radon-222☐ Strontium-89, 90☐ Isotopic Uranium☐ Other (Specify): _____☐ Nickel-63☐ Iron-55

CHAIN OF CUSTODY

1. 10/21/13
 Date
0745
 Time Custody Received

Name (Print)

PG 5E

Organization

Signature

Date

1715

Time Custody Released

2. _____
 Date

Name (Print)

Signature

Date

Time Custody Released

3. 10-22-13
 Date

Organization

Name (Print)

Organization

Signature

Date

Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable☐ Holding Time Exceeded☐ Broken Container☐ Sample Not Cooled☐ Leaked in Transit☐ Insufficient Sample☐ Improper Container

B. Preservatives/Carriers:

☐ Added While Sampling☐ Added in Laboratory☐ Not Added☐ Not Applicable



State of California - Health and Human Services Agency
California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0889

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / October 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/22/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0889-01	Sample ID: R 94014 Sample Type: Seawater	Time Collected: 10/21/2013 07:45	Sampling Point: Outfall Water	
Tritium	EPA 906.0	84.2 +/- 174	294	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164

Richmond, CA 94804

510-620-2911

Date Received

10-22-13

Lab No. (Leave Blank)

131 9689

Date & Time Sampled

10/21/13 - 0745

Serial Number

R 94014

Collector Information

Name:

Tom Hook

Dept./Branch:

P.O. Box 520

Address:

AVILA BEACH, CA 93424

Telephone No.: (805) 545-4409

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Sample Information

System Name / Facility:

DCPP OUTFALL

Sampling Point (s):

OUT

System No.:

Billing Agency

☐ DWFOB ()☐ RHB☐ RWQCB ()☐ DTSC☐ DWTPB☐ FDB☐ DWR☐ CDFG☐ EMB☐ Other (Specify)

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water☐ Groundwater☐ Surface Water☐ Wastewater☐ Raw☐ Water Treatment Plant (WTP)☐ Distribution System☐ Point of Use (POU)☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted☐ Air Filters

Date/Time

☐ Seawater☐ Sludge (Semi-solid Samples)

Finishing:

☐ Milk☐ Soil/Sediment

Starting:

☐ Wipes☐ Biota (Type):Net (M³)☐ Radon Canister☒ Other: PLUTONIUM SAMPLE☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added:

Iced/Frozen:

Other:

☐ Field Measurement: mR/hr☐ Radionuclide(s), if known:☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha☐ Gross Beta☐ Gamma Scan☐ Total Uranium☐ Total Beta (LSC)☐ NORM (Gamma)☐ Total Radium☒ Tritium (³H)☐ Isotopic Americium / Curium☐ Radium-226☐ Carbon-14☐ Isotopic Plutonium☐ Radium-228☐ Iodine-131☐ Isotopic Thorium☐ Radon-222☐ Strontium-89, 90☐ Isotopic Uranium☐ Other (Specify):☐ Nickel-63☐ Iron-55

CHAIN OF CUSTODY

1. 10/21/13
Date 0745
Time Custody Received

Name (Print)

PGSE

Organization

Signature

Date

1715

Time Custody Released

2. Date

Name (Print)

Signature

Date

Time Custody Released

3. 10-22-13
Date 11:00
Time Custody Received

Organization

Name (Print)

Organization

Signature

Date

Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable☐ Broken Container☐ Leaked in Transit☐ Improper Container☐ Holding Time Exceeded☐ Sample Not Cooled☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling☐ Added in Laboratory☐ Not Added☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0683

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / September 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 9/10/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0683-01	Sample ID: R 96389 Sample Type: Seawater	Time Collected: 9/9/2013 07:40	Sampling Point: Outfall Water	
K-40	EPA 901.1	345 +/- 22.0	79.6	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164

Richmond, CA 94804

510-620-2911

Date Received

9-10-13

Lab No. (Leave Blank)

13-0683

Date & Time Sampled

9/9/13 0740

Serial Number

R 96389

Collector Information

Name:

Dept./Branch:

Address:

Telephone No.: (505) 415-4109

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Sample Information

System Name / Facility:

Sampling Point (s):

System No.:

Billing Agency

☐ DWFOB ()☐ RHB☐ RWQCB ()☐ DTSC☐ DWTPB☐ FDB☐ DWR☐ CDFG☐ EMP☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water☐ Groundwater☐ Surface Water☐ Wastewater☐ Raw☐ Water Treatment Plant (WTP)☐ Distribution System☐ Point of Use (POU)☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted☐ Air Filters

Date/Time

☐ Seawater☐ Sludge (Semi-solid Samples)

Finishing: _____

☐ Milk☐ Soil/Sediment

Starting: _____

☐ Wipes☐ Biota (Type): _____Net (M³) _____☐ Radon Canister☐ Other: _____☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____

Iced/Frozen: _____

Other: _____

☐ Field Measurement: _____ mR/hr☐ Radionuclide(s), if known: _____☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha☐ Gross Beta☐ Gamma Scan☐ Total Uranium☐ Total Beta (LSC)☐ NORM (Gamma)☐ Total Radium☐ Tritium (³H)☐ Isotopic Americium / Curium☐ Radium-226☐ Carbon-14☐ Isotopic Plutonium☐ Radium-228☐ Iodine-131☐ Isotopic Thorium☐ Radon-222☐ Strontium-89, 90☐ Isotopic Uranium☐ Other (Specify): _____☐ Nickel-63☐ Iron-55

CHAIN OF CUSTODY

1. Date 9/9/13
Time Custody Received 0740

Name (Print)

Organization

Signature

Date

Time Custody Released

2. Date
Time Custody Received

Name (Print)

Organization

Signature

Date

Time Custody Released

3. Date 9-10-13
Time Custody Received 10:45

Name (Print)

Organization

Signature

Date

Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable☐ Broken Container☐ Leaked in Transit☐ Improper Container☐ Holding Time Exceeded☐ Sample Not Cooled☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling☐ Added in Laboratory☐ Not Added☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0684

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / September 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 9/10/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0684-01	Sample ID: R 96390	Time Collected: 9/9/2013 07:40	Sampling Point: Outfall Water	
	Sample Type: Seawater			
Tritium	EPA 906.0	-50.5 +/- 159	274	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch
 850 Marina Bay Parkway, G164
 Richmond, CA 94804
 510-620-2911

Date Received

9-10-13

Lab No. (Leave Blank)

13-0684

Date & Time Sampled

9/9/13 0740

Serial Number

R 96390

Collector Information

Name: Rick Treinen
 Dept./Branch: PO Box 54 93424
 Address: Avila Beach, CA 93426
 Telephone No.: 805-545-6481

Reporting Information

Name:
 Dept./Branch:
 Address:

Telephone No.:

Sample Information

System Name / Facility:
 Sampling Point (s):

Diablo Canyon Outfall

System No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

- ☐ Air Filters ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ Date/Time _____
☐ Milk ☐ Soil/Sediment
 Starting: _____
☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____
☐ Radon Canister ☒ Other: Tritium Sample
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☒ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. 9/9/13 Rick Treinen 9/9/13
 Date Name (Print) Date
0740 PG#E 1700
 Time Custody Received Organization Signature Time Custody Released
 2. _____
 Date Name (Print) Signature
 Time Custody Received Organization Signature
 3. 9-10-13 UA
 Date Name (Print) Signature
10:45 DURIB Signature
 Time Custody Received Organization Signature Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0664

Investigator: Tom Hook P O Box 56 Avila Beach CA 93424 Phone Number: 805-545-4409	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: Diablo Canyon NPP / September 2013		Samples Received by Lab: 9/5/2013	
System No:	Billing Agency: RHB		

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0664-01	Sample ID: R 95987 Sample Type: Drinking Water	Time Collected: 9/4/2013 09:25	Sampling Point: Bio Lab Sink	
K-40	EPA 901.1	-10.8 +/- 16.0	75.7	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 9-5-13	Lab No. (Leave Blank) 13-0664
	Date & Time Sampled 9/4/13 0925	Serial Number R 95987
Collector Information Name: <u>Tom Hook</u> Dept./Branch: <u>P.O. Box 50</u> Address: <u>AVA Beach, CA 93424</u> Telephone No.: <u>(805) 545-4409</u>	Reporting Information Name: _____ Dept./Branch: _____ Address: _____ Telephone No.: _____	
Sample Information System Name / Facility: <u>BIO LAB</u> Sampling Point (s): <u>DW1</u> System No.: _____	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time _____ ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ ☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | |
|----|--------------------------------|--------------------------|---------------|-------------------------------|
| 1. | Date
9/4/13 | Name (Print)
Tom Hook | Signature
 | Date
9/4/13 |
| | Time Custody Received
0925 | Organization
PGE | Signature | Time Custody Released
1630 |
| 2. | Date | Name (Print) | Signature | Date |
| | Time Custody Received | Organization | Signature | Time Custody Released |
| 3. | Date
9-5-13 | Name (Print)
UN | Signature
 | Date |
| | Time Custody Received
14:00 | Organization
DWRIB | Signature | Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0665

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / September 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 9/5/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0665-01	Sample ID: R 95982	Time Collected: 9/4/2013	09:25	Sampling Point: Bio Lab Sink
	Sample Type: Drinking Water			
Tritium	EPA 906.0	-103 +/- 157	274	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch
850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

9-5-13

Lab No. (Leave Blank) 5

13-0666

Date & Time Sampled

9/4/13 0925

Serial Number

R 95982

Collector Information

Name: Tom Hook
Dept./Branch: P.O. Box 56
Address: AVILA BEACH, CA 93424

Telephone No.: (805) 545-4409

Sample Information

System Name / Facility: BIO LAB
Sampling Point (s): DW1

System No.:

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing: _____

Starting: _____

Net (M³) _____☐ Air Charcoal Cartridge☐ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type): _____☒ Other: NATURAL BOTTLE

COMMENTS: (Cautions, etc.): _____

☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☒ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1.	Date <u>9/4/13</u>	Name (Print) <u>Tom Hook</u>	Signature <u>[Signature]</u>	Date <u>9/4/13</u>
	Time Custody Received <u>0925</u>	Organization <u>P.O. Box 56</u>		Time Custody Released <u>1630</u>
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____		Time Custody Released _____
3.	Date <u>9-5-13</u>	Name (Print) <u>VA</u>	Signature <u>[Signature]</u>	Date _____
	Time Custody Received <u>14:00</u>	Organization <u>DWR/LB</u>		Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0666

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / September 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 9/5/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0666-01	Sample ID: R 96388 Sample Type: Surface Water	Time Collected: 9/4/2013 09:12	Sampling Point: Diablo Creek	
K-40	EPA 901.1	24.1 +/- 12.4	56.9	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch
 850 Marina Bay Parkway, G164
 Richmond, CA 94804
 510-620-2911

Date Received

9-5-13

Lab No. (Leave Blank)

13-06676

Date & Time Sampled

9/4/13 0912

Serial Number

R 96388

Collector Information

Name: TOM HOOK
 Dept./Branch: P.O. BOX 56
 Address: AVILA BEACH, CA 93424
 Telephone No.: (805) 545-4409

Reporting Information

Name:
 Dept./Branch:
 Address:

Telephone No.:

Sample Information

System Name / Facility: DIABLO GREEN
 Sampling Point (s): 552

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

System No.:

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

- ☐ Air Filters ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ Date/Time: _____
☐ Milk ☐ Soil/Sediment
 Starting: _____
☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____
☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. 9/4/13 TOM HOOK 9/4/13
 Date 0912 Name (Print) P65K Date 1630
 Time Custody Received _____ Organization _____ Signature _____ Time Custody Released _____
 2. _____ Name (Print) _____ Date _____
 Time Custody Received _____ Organization _____ Signature _____ Time Custody Released _____
 3. 9-5-13 UA _____
 Date 14:00 Name (Print) DWR/LB Date _____
 Time Custody Received _____ Organization _____ Signature _____ Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

- ☐ Acceptable ☐ Broken Container ☒ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0667

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / September 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 9/5/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0667-01	Sample ID: R 95983	Time Collected: 9/4/2013	09:12	Sampling Point: Diablo Creek
	Sample Type: Surface Water			
Tritium	EPA 906.0	-82.1 +/- 158	274	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

9-5-13

Lab No. (Leave Blank)

13-066876

Date & Time Sampled

9/4/13 0912

Serial Number

R 95983

Collector Information

Name:

Dept./Branch:

Address:

Telephone No.: (805) 545-4409

Sample Information

System Name / Facility:

Sampling Point (s):

System No.:

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Billing Agency

☐ DWFOB ()☐ DWTPB☐ EMB☐ RHB☐ FDB☐ Other (Specify)☐ RWQCB ()☐ DWR☐ DTSC☐ CDFG

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water☐ Raw☐ Groundwater☐ Water Treatment Plant (WTP)☐ Surface Water☐ Distribution System☐ Wastewater☐ Point of Use (POU)☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted☐ Air Filters

Finishing:

Starting:

Net (M³)

Date/Time

☐ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type):☒ Other: TRITIUM BOTTLE☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added:

Iced/Frozen:

Other:

☐ Field Measurement: mR/hr☐ Radionuclide(s), if known:☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha☐ Total Uranium☐ Total Radium☐ Radium-226☐ Radium-228☐ Radon-222☐ Other (Specify):☐ Gross Beta☐ Total Beta (LSC)☒ Tritium (³H)☐ Carbon-14☐ Iodine-131☐ Strontium-89, 90☐ Nickel-63☐ Gamma Scan☐ NORM (Gamma)☐ Isotopic Americium / Curium☐ Isotopic Plutonium☐ Isotopic Thorium☐ Isotopic Uranium☐ Iron-55

CHAIN OF CUSTODY

1. 9/4/13

Date

0912

Time Custody Received

Name (Print)

P6SK

Organization

Signature

Date

9/4/13

Time Custody Released

2. Date

Name (Print)

Organization

Signature

Date

Time Custody Released

3. 9-5-13

Date

11:00

Time Custody Received

Name (Print)

UA

Organization

Signature

Date

Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable☐ Holding Time Exceeded☐ Broken Container☐ Sample Not Cooled☐ Leaked in Transit☐ Insufficient Sample☐ Improper Container

B. Preservatives/Carriers:

☐ Added While Sampling☐ Added in Laboratory☐ Not Added☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0630

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / August 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 8/20/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0630-01	Sample ID: R 95986 Sample Type: Seawater	Time Collected: 8/19/2013 07:30	Sampling Point: Outfall Water	
K-40	EPA 901.1	378 +/- 17.9	58.6	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 8-20-13	Lab No. (Leave Blank) 13-0630
	Date & Time Sampled 8/19/13 0730	Serial Number R 95086
Collector Information Name: Rick Treinen Dept./Branch: PO Box 54 Address: Avila Beach, CA 93424 Telephone No.: 805-545-6481	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: DCPPOUTFALL Sampling Point (s): OUT System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time ☒ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | |
|----|--------------------------------|------------------------------|---------------|-------------------------------|
| 1. | Date
8/19/13 | Name (Print)
Rick Treinen | Signature
 | Date
8/19/13 |
| | Time Custody Received
0730 | Organization
PG&E | | Time Custody Released
1630 |
| 2. | Date | Name (Print) | Signature | Date |
| | Time Custody Received | Organization | | Time Custody Released |
| 3. | Date
8-20-13 | Name (Print)
NA | Signature
 | Date |
| | Time Custody Received
11:00 | Organization
DWRLB | Signature | Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0631

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / August 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 8/20/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0631-01	Sample ID: R 92259	Time Collected: 8/19/2013 07:30	Sampling Point: Outfall Water	
	Sample Type: Seawater			
Tritium	EPA 906.0	-154 +/- 156	274	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 8-20-13	Lab No. (Leave Blank) B-0631
	Date & Time Sampled 8/19/13 0730	Serial Number R 92259
Collector Information Name: TOM HOOK Dept./Branch: P.O. BOX 56 Address: AVILA BEACH, CA 93424 Telephone No.: (805) 545-4409	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: DCPD OUTFALL Sampling Point (s): OUT System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- | | | | |
|---|--|--|--|
| <input type="checkbox"/> Drinking Water | <input type="checkbox"/> Groundwater | <input type="checkbox"/> Surface Water | <input type="checkbox"/> Wastewater |
| <input type="checkbox"/> Raw | <input type="checkbox"/> Water Treatment Plant (WTP) | <input type="checkbox"/> Distribution System | <input type="checkbox"/> Point of Use (POU) |
| <input type="checkbox"/> Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted | | | |
| <input type="checkbox"/> Air Filters | Date/Time | <input checked="" type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input type="checkbox"/> Milk | <input type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): _____ |
| Net (M ³) _____ | _____ | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
- ☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
- ☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|---|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (ESC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input checked="" type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

- | | | | |
|--|--|------------------------|--|
| 1. Date: 8/19/13
Time Custody Received: 0730 | Name (Print): TOM HOOK
Organization: PG&E | Signature: [Signature] | Date: 8/19/13
Time Custody Released: 1630 |
| 2. Date: _____
Time Custody Received: _____ | Name (Print): _____
Organization: _____ | Signature: _____ | Date: _____
Time Custody Released: _____ |
| 3. Date: 8-20-13
Time Custody Received: 11:00 | Name (Print): UA
Organization: DWRLB | Signature: [Signature] | Date: _____
Time Custody Released: _____ |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: ≤ 0.01 uR/HR
- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Acceptable | <input type="checkbox"/> Broken Container | <input type="checkbox"/> Leaked in Transit | <input type="checkbox"/> Improper Container |
| <input type="checkbox"/> Holding Time Exceeded | <input type="checkbox"/> Sample Not Cooled | <input type="checkbox"/> Insufficient Sample | |
- B. Preservatives/Carriers:
- | | | | |
|---|--|------------------------------------|---|
| <input type="checkbox"/> Added While Sampling | <input type="checkbox"/> Added in Laboratory | <input type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |
|---|--|------------------------------------|---|



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0583

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / August 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 8/7/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0583-01	Sample ID: R 95910	Time Collected: 8/6/2013 09:00	Sampling Point: Bio Lab Sink	
	Sample Type: Drinking Water			
K-40	EPA 901.1	22.4 +/- 12.4	57.0	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 8-7-13	Lab No. (Leave Blank) 13-0583
	Date & Time Sampled 8/6/13 0900	Serial Number R 95910
Collector Information Name: Rich Treinen Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424 Telephone No.: 805-545-6481	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: BIO LAB Sampling Point (s): DW1 System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge


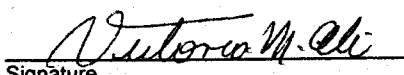
COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | |
|----|--------------------------------------|--|---|--------------------------------------|
| 1. | Date
8/6/13
0900 | Name (Print)
Rich Treinen
PG#E | Signature
 | Date
8/6/13
1630 |
| | Time Custody Received | Organization | | Time Custody Released |
| 2. | Date | Name (Print) | Signature | Date |
| | Time Custody Received | Organization | | Time Custody Released |
| 3. | Date
8-7-13
4:15 | Name (Print)
JA
DWR CB | Signature
 | Date |
| | Time Custody Received | Organization | | Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable

50.0 mR/hr



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0582

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / August 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 8/7/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0582-01	Sample ID: R 95914	Time Collected: 8/6/2013	09:00	Sampling Point: Bio Lab Sink
	Sample Type:			
Tritium	EPA 906.0	-91.3 +/- 168	292	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

4-7-13

Lab No. (Leave Blank)

13-0582

Date & Time Sampled

8/6/13 0900

Serial Number

R 95914

Collector Information

Name: Rick Treinen
Dept./Branch: PO Box 56
Address: Avila Beach, CA 93424

Telephone No.: 805-545-6481

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility: BIO LAB
Sampling Point (s): DWI

System No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters ☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing: _____ Date/Time: _____
Starting: _____
Net (M³) _____
☐ Milk ☐ Soil/Sediment
☐ Wipes ☐ Biota (Type): _____
☐ Radon Canister ☒ Other: Tritium Sample
- ☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. Date: 8/6/13 Time Custody Received: 0900
Name (Print): Rick Treinen Organization: PG&E Signature: [Signature] Date: 8/6/13 Time Custody Released: 1630
2. Date: _____ Time Custody Received: _____
Name (Print): _____ Organization: _____ Signature: _____ Date: _____ Time Custody Released: _____
3. Date: 4-7-13 Time Custody Received: 11:00
Name (Print): J.A. Organization: DWRLB Signature: [Signature] Date: _____ Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0580

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / August 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 8/7/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0580-01	Sample ID: R 95912	Time Collected: 8/6/2013 08:40	Sampling Point: Diablo Creek	
	Sample Type: Surface Water			
K-40	EPA 901.1	57.4 +/- 13.1	58.3	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 8-7-13	Lab No. (Leave Blank) 13-0540
	Date & Time Sampled 8/6/13 0840	Serial Number R 95912
Collector Information Name: Rich Treinen Dept./Branch: PO Box 56 Address: Avila Beach, CA 93429 Telephone No.: 805-545-6481	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: DIABLO CREEK Sampling Point (s): System No.: 552	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- | | | | |
|---|---|---|--|
| <input checked="" type="checkbox"/> Drinking Water | <input type="checkbox"/> Groundwater | <input checked="" type="checkbox"/> Surface Water | <input type="checkbox"/> Wastewater |
| <input type="checkbox"/> Raw | <input checked="" type="checkbox"/> Water Treatment Plant (WTP) | <input type="checkbox"/> Distribution System | <input type="checkbox"/> Point of Use (POU) |
| <input type="checkbox"/> Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted | | | |
| <input type="checkbox"/> Air Filters | Date/Time | <input checked="" type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input type="checkbox"/> Milk | <input type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): _____ |
| Net (M ³) _____ | _____ | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.):

- | | | |
|--|---|---------------------------------------|
| <input type="checkbox"/> Field Treatment: Preservatives added: _____ | <input type="checkbox"/> Iced/Frozen: _____ | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Field Measurement: _____ mR/hr | <input type="checkbox"/> Radionuclide(s), if known: _____ | |
| <input type="checkbox"/> Rush/Priority (should be prearranged and have supervisory approval) | | |

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input checked="" type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (LSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89, 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

- | | | | |
|--|--|---------------------------------|---|
| 1. 8/6/13
Date
0840
Time Custody Received | Rich Treinen
Name (Print)
PG&E
Organization | [Signature]
Signature | 8/6/13
Date
1630
Time Custody Released |
| 2. _____
Date
Time Custody Received | _____
Name (Print)
Organization | _____
Signature | _____
Date
Time Custody Released |
| 3. 8-13-13
Date
11:00
Time Custody Received | UA
Name (Print)
DWR/B
Organization | [Signature]
Signature | _____
Date
Time Custody Released |

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Acceptable | <input type="checkbox"/> Broken Container | <input type="checkbox"/> Leaked in Transit | <input type="checkbox"/> Improper Container |
| <input type="checkbox"/> Holding Time Exceeded | <input type="checkbox"/> Sample Not Cooled | <input type="checkbox"/> Insufficient Sample | |

B. Preservatives/Carriers:

- | | | | |
|---|--|------------------------------------|---|
| <input type="checkbox"/> Added While Sampling | <input type="checkbox"/> Added in Laboratory | <input type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |
|---|--|------------------------------------|---|



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0581

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / August 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 8/7/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0581-01	Sample ID: R 95984	Time Collected: 8/6/2013	08:40	Sampling Point: Diablol Creek
	Sample Type: Surface Water			
Tritium	EPA 906.0	19.1 +/- 155	265	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch
850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

8-7-13

Lab No. (Leave Blank)

13-0541

Date & Time Sampled

8/6/13 0840

Serial Number

R 95984

Collector Information

Name: Rick Treinen
Dept./Branch: PO Box 56
Address: Avila Beach, CA 93424

Telephone No.: 805-545-6481

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Billing Agency

- ☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

Sample Information

System Name / Facility: DIABLO CREEK
Sampling Point (s):

System No.: 552

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
☐ Air Filters ☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing: _____ Date/Time: _____ ☐ Milk ☐ Soil/Sediment
Starting: _____ ☐ Wipes ☐ Biota (Type): _____
Net (M³) _____ ☐ Radon Canister ☒ Other: Tritium Sample
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☒ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☒ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

No.	Date	Name (Print)	Signature	Date
1.	8/6/13	Rick Treinen	[Signature]	8/6/13
	Time Custody Received	Organization PG&E		Time Custody Released
2.	Date	Name (Print)	Signature	Date
	Time Custody Received	Organization		Time Custody Released
3.	Date	Name (Print)	Signature	Date
	Time Custody Received	Organization		Time Custody Released

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency
California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0540

Investigator: Tom Hook P O Box 56 Avila Beach CA 93424 Phone Number: 805-545-4409	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: Diablo Canyon NPP / July 2013		Samples Received by Lab: 7/16/2013	
System No:		Billing Agency: RHB	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0540-01	Sample ID: R 96026 Sample Type: Seawater	Time Collected: 7/15/2013 07:38	Sampling Point: Outfall Water	
K-40	EPA 901.1	352 +/- 17.2	56.8	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 7/16/13	Lab No. (Leave Blank) 13-0540
	Date & Time Sampled 7/15/13 0738	Serial Number R 96026
Collector Information Name: <u>TOM HOOK</u> Dept./Branch: <u>P.O. BOX 56</u> Address: <u>AVILA BEACH, CA 93424</u> Telephone No.: <u>(805) 545-4409</u>		
Reporting Information Name: _____ Dept./Branch: _____ Address: _____ Telephone No.: _____		
Sample Information System Name / Facility: <u>DIPP OUTFALL</u> Sampling Point (s): <u>OUT</u> System No.: _____		
Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____		

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time _____ ☒ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1.	Date 7/15/13 0738	Name (Print) Tom Hook P.O. Box 56	Signature 	Date 7/15/13 1700
	Time Custody Received	Organization		Time Custody Released
2.	Date	Name (Print)	Signature	Date
	Time Custody Received	Organization		Time Custody Released
3.	Date 7/16/13 14:00	Name (Print) A. Tan DWR/B	Signature Angela Tan	Date
	Time Custody Received	Organization		Time Custody Released

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: < 0.01 MR/hr.
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency
California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0541

Investigator: Tom Hook P O Box 56 Avila Beach CA 93424 Phone Number: 805-545-4409	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: Diablo Canyon NPP / July 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 7/16/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0541-01	Sample ID: R 96036 Sample Type: Seawater	Time Collected: 7/15/2013 07:38	Sampling Point: Outfall Water	
Tritium	EPA 906.0	53.5 +/- 172	292	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

7/16/13

Lab No. (Leave Blank)

13-0541

Date & Time Sampled

7/15/13 0738

Serial Number

R 96036

Collector Information

Name: Tom Hook
Dept./Branch: P.O. Box 56
Address: AVILA BEACH, CA 93424
Telephone No.: (805) 515-4409

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility: DAPP OUTFALL
Sampling Point (s): OUT

System No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing: _____

Starting: _____

Net (M³) _____☐ Air Charcoal Cartridge☒ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type): _____☒ Other: TRITIUM SAMPLE

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1.	Date 7/15/13	Name (Print) Tom Hook	Signature 	Date 7/15/13	Time Custody Released 1700
	Time Custody Received 0738	Organization PG&E			
2.	Date	Name (Print)	Signature	Date	Time Custody Released
	Time Custody Received	Organization			
3.	Date 07/16/13	Name (Print) A. Tan	Signature Angela Tan	Date	Time Custody Released
	Time Custody Received 14:00	Organization DWRLB			

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



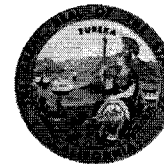
State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0530

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / July 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 7/10/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0530-01	Sample ID: R 95918	Time Collected: 7/9/2013	07:50	Sampling Point: Bio Lab Sink
	Sample Type: Drinking Water			
K-40	EPA 901.1	5.66 +/- 12.0	56.4	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 7/10/13	Lab No. (Leave Blank) 13-0530-01
	Date & Time Sampled 7/9/13-0750	Serial Number R 95918
Collector Information Name: Rick Treinen Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424 Telephone No.: 805-545-6481	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: BIO LAB Sampling Point (s): DWI System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | |
|----|---|--|-------------------------|---|
| 1. | Date
7/9/13
0750
Time Custody Received | Name (Print)
Rick Treinen
PG&E
Organization | Signature
 | Date
7/9/13
1700
Time Custody Released |
| 2. | Date

Time Custody Received | Name (Print)

Organization | Signature
_____ | Date

Time Custody Released |
| 3. | Date
7/10/13
13:30
Time Custody Received | Name (Print)
A. Tan
DWRIB
Organization | Signature
Angela Tan | Date

Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable
- 40.01 MR/hr.



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0531

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / July 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 7/10/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0531-01	Sample ID: R 96046	Time Collected: 7/9/2013 07:50	Sampling Point: Bio Lab.	
	Sample Type: Drinking Water			
Tritium	EPA 906.0	22.3 +/- 171	292	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 7/10/13	Lab No. (Leave Blank) 13-0530-01
	Date & Time Sampled 7/9/13 - 0750	Serial Number R 96046
Collector Information Name: Rick Treinen Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424 Telephone No.: 805-545-6481	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: B10 LAB Sampling Point (s): DWI System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify):	

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

- ☐ Air Filters Date/Time ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: ☐ Milk ☐ Soil/Sediment
 Starting: ☐ Wipes ☐ Biota (Type):
 Net (M³) ☐ Radon Canister ☒ Other: Tritium Sample
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: Iced/Frozen: Other:
☐ Field Measurement: mR/hr ☐ Radionuclide(s), if known:
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | | |
|----|--------------------------|--------------------------------------|-----------------------------|------------------------|-----------------------|
| 1. | Date
7/9/13
0750 | Name (Print)
Rick Treinen
PG&E | Signature
 | Date
7/9/13
1200 | Time Custody Released |
| 2. | Date | Name (Print) | Signature
A. Tan
DWRB | Date | Time Custody Released |
| 3. | Date
7/10/13
14:00 | Name (Print)
A. Tan
DWRB | Signature
Angela Tan | Date | Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0532

Investigator: Rick Treinen PO Box 56 Avila Beach CA 93424 Phone Number: 805-545-6481	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: Diablo Canyon NPP / July 2013		Samples Received by Lab: 7/10/2013	
System No:		Billing Agency: RHB	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0532-01	Sample ID: R 96045 Sample Type: Surface Water	Time Collected: 7/9/2013 07:21	Sampling Point: Diablo Creek	
K-40	EPA 901.1	34.8 +/- 12.4	56.3	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 7/10/13	Lab No. (Leave Blank) 13-0532-01
	Date & Time Sampled 7/9/13 - 0721	Serial Number R 96045
Collector Information Name: Rick Treinen Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424 Telephone No.: 805-545-6481	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: Diablo Creek Sampling Point (s): 552 System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time ☐ Seawater ☒ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (T₂H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | | |
|----|--------------------------|--------------------------------------|---------------|------------------------|-----------------------|
| 1. | Date
7/9/13
0721 | Name (Print)
Rick Treinen
PG&E | Signature
 | Date
7/9/13
1700 | Time Custody Released |
| 2. | Date | Name (Print) | Signature | Date | Time Custody Released |
| 3. | Date
7/10/13
12:00 | Name (Print)
A. Tan
DWRLB | Signature
 | Date | Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



850 Marina Bay Parkway, Richmond, CA 94804
Phone: (510) 620-2911 Fax: (510) 620-2940

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 7/10/13	Lab No. (Leave Blank) 8305323-011
	Date & Time Sampled 7/9/13 - 0721	Serial Number R 95920

Collector Information Name: Rich Treinen Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424 Telephone No.: 805-545-6481	Reporting Information Name: Dept./Branch: Address: Telephone No.:
Sample Information System Name / Facility: Diablo Creek Sampling Point (s): SS2 System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

- ☐ Air Filters ☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing: _____ ☐ Milk ☐ Soil/Sediment
Starting: _____ ☐ Wipes ☐ Biota (Type):
Net (M³) _____ ☐ Radon Canister ☒ Other: Tritium Sample
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. Date: 7/9/13 Time Custody Received: 0721	Name (Print): Rich Treinen Organization: PG&E Signature: [Signature]	Date: 7/9/13 Time Custody Released: 1700
2. Date: _____ Time Custody Received: _____	Name (Print): _____ Organization: _____ Signature: _____	Date: _____ Time Custody Released: _____
3. Date: _____ Time Custody Received: _____	Name (Print): _____ Organization: _____ Signature: _____	Date: _____ Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0473

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / June 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 6/18/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0473-01	Sample ID: R 96042 Sample Type: Seawater	Time Collected: 6/17/2013 07:30	Sampling Point: Outfall Water	
K-40	EPA 901.1	349 +/- 22.5	82.5	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch
850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

6-18-13

Lab No. (Leave Blank)

13-0479

Date & Time Sampled

6/17/13-0730

Serial Number

R. 96042

Collector Information

Name: Rick Trainor
Dept./Branch: PO Box 56
Address: Avila Beach, CA 93424

Telephone No.: 805-545-6481

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility: DCPD OUTFALL
Sampling Point (s): OUT

System No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters ☐ Date/Time ☒ Seawater ☐ Sludge (Semi-solid Samples)
Finishing: _____ ☐ Milk ☐ Soil/Sediment
Starting: _____ ☐ Wipes ☐ Biota (Type): _____
Net (M³) _____ ☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. Date: 6/17/13 Name (Print): Rick Trainor
Time Custody Received: 0730 Organization: PG&E
Signature: [Signature] Date: 6/17/13
Time Custody Released: 1700
2. Date: _____ Name (Print): _____
Time Custody Received: _____ Organization: _____
Signature: _____ Date: _____
Time Custody Released: _____
3. Date: 6-18-13 Name (Print): UA
Time Custody Received: 11:30 Organization: DWRLB
Signature: [Signature] Date: _____
Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0474

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / June 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 6/18/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0474-01	Sample ID: R 96041	Time Collected: 6/17/2013 07:30	Sampling Point: Outfall Water	
	Sample Type: Seawater			
Tritium	EPA 906.0	96.1 +/- 152	257	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

6-18-13

Lab No. (Leave Blank)

13-09174

Date & Time Sampled

6/17/13 - 0730

Serial Number

R 96041

Collector Information

Name: Rich Treinan
Dept./Branch: PO Box 56
Address: Avila Beach, CA 93424

Telephone No.: 805-545-6481

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility: DCPP OUTFALL
Sampling Point (s): OUT

System No.:

Billing Agency

☒ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters ☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing: _____ Date/Time: _____
Starting: _____
Net (M³) _____
☐ Air Charcoal Cartridge ☐ Milk ☐ Soil/Sediment
☐ Wipes ☐ Biota (Type): _____
☐ Radon Canister ☒ Other: TRITIUM SAMPLE

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☒ Total Radium ☒ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. 6/17/13 Rich Treinan 6/17/13
Date Name (Print) Date
0730 PGE 1700
Time Custody Received Organization Signature Time Custody Released
2. _____
Date Name (Print) Date
Time Custody Received Organization Signature Time Custody Released
3. 6-18-13 UA _____
Date Name (Print) Date
11:30 DWRLB _____
Time Custody Received Organization Signature Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: 6-18-13
☐ Acceptable ☒ Broken Container
☐ Holding Time Exceeded ☒ Sample Not Cooled
B. Preservatives/Carriers:
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0463

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / June 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 6/11/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0463-01	Sample ID: R 92350	Time Collected: 6/10/2013 07:40	Sampling Point: Bio Lab Sink	
	Sample Type: Drinking Water			
K-40	EPA 901.1	8.29 +/- 17.3	81.0	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 6-11-13	Lab No. (Leave Blank) 13-00163
	Date & Time Sampled 6/10/13 - 0740	Serial Number R 92350
Collector Information Name: TOM HOOK Dept./Branch: P.O. BOX 56 Address: AVILA BEACH, CA 93424 Telephone No.: (805) 545-4409	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: BIO LAB Sampling Point (s): DW1 System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- | | | | |
|---|--|--|--|
| <input checked="" type="checkbox"/> Drinking Water | <input type="checkbox"/> Groundwater | <input type="checkbox"/> Surface Water | <input type="checkbox"/> Wastewater |
| <input type="checkbox"/> Raw | <input type="checkbox"/> Water Treatment Plant (WTP) | <input type="checkbox"/> Distribution System | <input type="checkbox"/> Point of Use (POU) |
| <input type="checkbox"/> Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted | | | |
| <input type="checkbox"/> Air Filters | Date/Time | <input type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input type="checkbox"/> Milk | <input type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): _____ |
| Net (M ³) _____ | _____ | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
- ☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
- ☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input checked="" type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (LSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89, 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

- | | | | |
|------------------------------|------------------------|------------------------|------------------------------|
| 1. Date: 6/10/13 | Name (Print): TOM HOOK | Signature: [Signature] | Date: 6/10/13 |
| Time Custody Received: 0740 | Organization: PG&E | | Time Custody Released: 1700 |
| 2. Date: _____ | Name (Print): _____ | Signature: _____ | Date: _____ |
| Time Custody Received: _____ | Organization: _____ | | Time Custody Released: _____ |
| 3. Date: 6-11-13 | Name (Print): UA | Signature: [Signature] | Date: _____ |
| Time Custody Received: 8:45 | Organization: DWRLB | | Time Custody Released: _____ |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: ≤ 0.01 MR/HR
- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Acceptable | <input type="checkbox"/> Broken Container | <input type="checkbox"/> Leaked in Transit | <input type="checkbox"/> Improper Container |
| <input type="checkbox"/> Holding Time Exceeded | <input type="checkbox"/> Sample Not Cooled | <input type="checkbox"/> Insufficient Sample | |
- B. Preservatives/Carriers:
- | | | | |
|---|--|------------------------------------|---|
| <input type="checkbox"/> Added While Sampling | <input type="checkbox"/> Added in Laboratory | <input type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |
|---|--|------------------------------------|---|



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0464

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / June 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 6/11/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0464-01	Sample ID: R 92260	Time Collected: 6/10/2013 07:40	Sampling Point: Bio Lab Sink	
	Sample Type: Drinking Water			
Tritium	EPA 906.0	36.0 +/- 151	257	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received <u>6-11-13</u>	Lab No. (Leave Blank) <u>13-0464</u>
	Date & Time Sampled <u>6/11/13 - 0740</u>	Serial Number <u>R 92260</u>
Collector Information Name: <u>TOM HOOK</u> Dept./Branch: <u>P.O. BOX 56</u> Address: <u>AVILA BEACH, CA 93424</u> Telephone No.: <u>707-545-4409</u>	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: <u>BIO LAB</u> Sampling Point (s): <u>DW1</u> System No.:	Billing Agency <input checked="" type="checkbox"/> DWFOB (<input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- | | | | |
|---|--|--|--|
| <input checked="" type="checkbox"/> Drinking Water | <input type="checkbox"/> Groundwater | <input type="checkbox"/> Surface Water | <input type="checkbox"/> Wastewater |
| <input type="checkbox"/> Raw | <input type="checkbox"/> Water Treatment Plant (WTP) | <input type="checkbox"/> Distribution System | <input type="checkbox"/> Point of Use (POU) |
| <input type="checkbox"/> Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted | | | |
| <input type="checkbox"/> Air Filters | Date/Time | <input type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input type="checkbox"/> Milk | <input type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): _____ |
| Net (M ³) _____ | _____ | <input type="checkbox"/> Radon Canister | <input checked="" type="checkbox"/> Other: <u>TRIUM BOTTLE</u> |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
- ☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
- ☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (BSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89, 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

- | | | | |
|--|--|---------------------------------|--|
| 1. <u>6/10/13</u>
Date
<u>0740</u>
Time Custody Received | <u>TOM HOOK</u>
Name (Print)
<u>PG&E</u>
Organization | <u>[Signature]</u>
Signature | <u>6/10/13</u>
Date
<u>1700</u>
Time Custody Released |
| 2. <u>6/11/13</u>
Date
<u>13:00</u>
Time Custody Received | <u>UA</u>
Name (Print)
<u>DWR/LB</u>
Organization | <u>[Signature]</u>
Signature | <u>[Signature]</u>
Time Custody Released |
| 3. <u>6-11-13</u>
Date
<u>13:00</u>
Time Custody Received | <u>[Signature]</u>
Name (Print)
<u>[Signature]</u>
Organization | <u>[Signature]</u>
Signature | <u>[Signature]</u>
Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:** ≤ 0.01 uR/hr
- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Acceptable | <input type="checkbox"/> Broken Container | <input type="checkbox"/> Leaked in Transit | <input type="checkbox"/> Improper Container |
| <input type="checkbox"/> Holding Time Exceeded | <input type="checkbox"/> Sample Not Cooled | <input type="checkbox"/> Insufficient Sample | |
- B. Preservatives/Carriers:**
- | | | | |
|---|--|------------------------------------|---|
| <input type="checkbox"/> Added While Sampling | <input type="checkbox"/> Added in Laboratory | <input type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |
|---|--|------------------------------------|---|



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0461

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / June 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 6/11/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0461-01	Sample ID: R 96032	Time Collected: 6/10/2013 07:30	Sampling Point: Diablo Creek	
	Sample Type: Drinking Water			
K-40	EPA 901.1	1.04 +/- 13.6	64.2	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

6-11-13

Lab No. (Leave Blank)

13-0461

Date & Time Sampled

6/10/13 - 0730

Serial Number

R 96032

Collector Information

Name:

Dept./Branch:

Address:

Telephone No.:

Sample Information

System Name / Facility:

Sampling Point (s):

System No.:

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Billing Agency

☐ DWFOB ()☐ RHB☐ RWQCB ()☐ DTSC☐ DWTPB☐ FDB☐ DWR☐ CDFG☐ EMB☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☒ Drinking Water☐ Groundwater☐ Surface Water☐ Wastewater☐ Raw☐ Water Treatment Plant (WTP)☐ Distribution System☐ Point of Use (POU)☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted☐ Air Filters

Date/Time

☐ Seawater☐ Sludge (Semi-solid Samples)

Finishing: _____

☐ Milk☐ Soil/Sediment

Starting: _____

☐ Wipes☐ Biota (Type): _____Net (M³) _____☐ Radon Canister☐ Other: _____☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____

Used/Frozen: _____

Other: _____

☐ Field Measurement: _____ mR/hr☐ Radionuclide(s), if known: _____☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha☐ Gross Beta☒ Gamma Scan☐ Total Uranium☐ Total Beta (LSC)☐ NORM (Gamma)☐ Total Radium☐ Tritium (³H)☐ Isotopic Americium / Curium☐ Radium-226☐ Carbon-14☐ Isotopic Plutonium☐ Radium-228☐ Iodine-131☐ Isotopic Thorium☐ Radon-222☐ Strontium-89, 90☐ Isotopic Uranium☐ Other (Specify): _____☐ Nickel-63☐ Iron-55

CHAIN OF CUSTODY

1.

Date

6/10/13

Name (Print)

Tom Hook

Time Custody Received

0730

Organization

PG&E

Signature

Date

6/10/13

Time Custody Released

1700

2.

Date

Name (Print)

Time Custody Received

Organization

Signature

Date

Time Custody Released

3.

Date

6-11-13

Name (Print)

UA

Time Custody Received

9:45

Organization

DWR/LB

Signature

Date

Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable☐ Holding Time Exceeded☐ Broken Container☐ Sample Not Cooled☐ Leaked in Transit☐ Insufficient Sample☐ Improper Container

B. Preservatives/Carriers:

☐ Added While Sampling☐ Added in Laboratory☐ Not Added☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0462

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / June 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 6/11/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0462-01	Sample ID: R 96021	Time Collected: 6/10/2013 07:30	Sampling Point: Diablo Creek	
	Sample Type: Drinking Water			
Tritium	EPA 906.0	-50.0 +/- 148	257	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 6-11-13	Lab No. (Leave Blank) 13-0462			
	Date & Time Sampled 6/10/13 - 0730	Serial Number R 96021			
Collector Information Name: Tom Hook Dept./Branch: P.O. Box 56 Address: AVILA BEACH, CA 93424 Telephone No.: (805) 545-4409			Reporting Information Name: Dept./Branch: Address: Telephone No.:		
Sample Information System Name / Facility: DIABLO CREEK Sampling Point (s): 552 System No.:			Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____		

TYPE OF SAMPLE (Check all applicable boxes)

- | | | | |
|--|--|--|---|
| <input checked="" type="checkbox"/> Drinking Water | <input type="checkbox"/> Groundwater | <input type="checkbox"/> Surface Water | <input type="checkbox"/> Wastewater |
| <input type="checkbox"/> Raw | <input type="checkbox"/> Water Treatment Plant (WTP) | <input type="checkbox"/> Distribution System | <input type="checkbox"/> Point of Use (POU) |
| <input type="checkbox"/> Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted | | | |
| <input type="checkbox"/> Air Filters | Date/Time | <input type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input type="checkbox"/> Milk | <input type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): _____ |
| Net (M ³) _____ | _____ | <input type="checkbox"/> Radon Canister | <input checked="" type="checkbox"/> Other: TRITIUM BOTTLE |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.):

- | | | | |
|--|---|---|---------------------------------------|
| <input type="checkbox"/> Field Treatment: Preservatives added: _____ | <input type="checkbox"/> Field Measurement: _____ mR/hr | <input type="checkbox"/> Radionuclide(s), if known: _____ | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Rush/Priority (should be prearranged and have supervisory approval) | | | |

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (LSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89, 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

1. Date: 6/10/13 Time Custody Received: 0730	Name (Print): Tom Hook Organization: PE-E Signature: [Signature]	Date: 6/10/13 Time Custody Released: 1300
2. Date: _____ Time Custody Received: _____	Name (Print): _____ Organization: _____ Signature: _____	Date: _____ Time Custody Released: _____
3. Date: 6-11-13 Time Custody Received: 13:00	Name (Print): UA Organization: DWRLB Signature: [Signature]	Date: _____ Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- | | | | |
|--|--|--|---|
| A. Condition at Time of Receipt: | | | |
| <input type="checkbox"/> Acceptable | <input type="checkbox"/> Broken Container | <input type="checkbox"/> Leaked in Transit | <input type="checkbox"/> Improper Container |
| <input type="checkbox"/> Holding Time Exceeded | <input type="checkbox"/> Sample Not Cooled | <input type="checkbox"/> Insufficient Sample | |
| B. Preservatives/Carriers: | | | |
| <input type="checkbox"/> Added While Sampling | <input type="checkbox"/> Added in Laboratory | <input type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0373

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / May 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 5/14/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0373-01	Sample ID: R 96067 Sample Type: Seawater	Time Collected: 5/13/2013 07:45	Sampling Point: Outfall Water	
K-40	EPA 901.1	332 +/- 17.4	60.1	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

5-14-13

Lab No. (Leave Blank)

13-0373

Date & Time Sampled

5/13/13 - 0745

Serial Number

R 96067

Collector Information

Name:

Dept./Branch:

Address:

Telephone No.: (805) 545-4409

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Sample Information

System Name / Facility:

Sampling Point (s):

System No.:

Billing Agency

☐ DWFOB ()☐ RHB☐ RWQCB ()☐ DTSC☐ DWTPB☐ FDB☐ DWR☐ CDFG☐ EMB☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water☐ Groundwater☐ Surface Water☐ Wastewater☐ Raw☐ Water Treatment Plant (WTP)☐ Distribution System☐ Point of Use (POU)☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted☐ Air Filters

Date/Time

☒ Seawater☐ Sludge (Semi-solid Samples)

Finishing: _____

☐ Milk☐ Soil/Sediment

Starting: _____

☐ Wipes☐ Biota (Type): _____Net (M³) _____☐ Radon Canister☐ Other: _____☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____

Iced/Frozen: _____

Other: _____

☐ Field Measurement: _____ mR/hr☐ Radionuclide(s), if known: _____☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha☐ Gross Beta☒ Gamma Scan☐ Total Uranium☐ Total Beta (LSC)☐ NORM (Gamma)☐ Total Radium☐ Tritium (³H)☐ Isotopic Americium / Curium☐ Radium-226☐ Carbon-14☐ Isotopic Plutonium☐ Radium-228☐ Iodine-131☐ Isotopic Thorium☐ Radon-222☐ Strontium-89, 90☐ Isotopic Uranium☐ Other (Specify): _____☐ Nickel-63☐ Iron-55

CHAIN OF CUSTODY

1. 5/13/13

Date

0745

Name (Print)

PG & E

Time Custody Received

Organization

Signature

Date

5/13/13

Time Custody Released

2. _____

Date

Name (Print)

Date

Time Custody Received

Organization

Signature

Time Custody Released

3. 5-14-13

Date

14:40

Name (Print)

DWR CB

Time Custody Received

Organization

Signature

Date

Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable☐ Broken Container☐ Leaked in Transit☐ Improper Container☐ Holding Time Exceeded☐ Sample Not Cooled☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling☐ Added in Laboratory☐ Not Added☐ Not Applicable

≤ 0.01 uR/hr



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0374

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / May 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 5/14/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0374-01	Sample ID: R 96056 Sample Type: Seawater	Time Collected: 5/13/2013 07:45	Sampling Point: Outfall Water	
Tritium	EPA 906.0	62.1 +/- 151	257	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

5-14-13

Lab No. (Leave Blank)

13-0374

Date & Time Sampled

5/13/13 - 0745

Serial Number

R 96056

Collector Information

Name:

Dept./Branch:

Address:

Tom Hook
P.O. Box 52
Avila Beach, CA 93424

Telephone No.:

(805) 545-4409

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Sample Information

System Name / Facility:

Sampling Point (s):

DWP DUTFALL
OUT

Billing Agency

☐ DWFOB ()☐ DWTPB☐ EMB☐ RHB☐ FDB☐ Other (Specify)☐ RWQCB ()☐ DWR☐ DTSC☐ CDFG

System No.:

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water☐ Raw☐ Groundwater☐ Water Treatment Plant (WTP)☐ Surface Water☐ Distribution System☐ Wastewater☐ Point of Use (POU)☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted☐ Air Filters

Finishing:

Starting:

Net (M³)

Date/Time

☒ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type):☒ Other: TRITIUM SAMPLE☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added:

iced/Frozen:

Other:

☐ Field Measurement: mR/hr☐ Radionuclide(s), if known:☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha☐ Total Uranium☐ Total Radium☐ Radium-226☐ Radium-228☐ Radon-222☐ Other (Specify):☐ Gross Beta☐ Total Beta (LSC)☒ Tritium (³H)☐ Carbon-14☐ Iodine-131☐ Strontium-89, 90☐ Nickel-63☐ Gamma Scan☐ NORM (Gamma)☐ Isotopic Americium / Curium☐ Isotopic Plutonium☐ Isotopic Thorium☐ Isotopic Uranium☐ Iron-55

CHAIN OF CUSTODY

1. Date: 5/13/13
Time Custody Received: 0745

Name (Print):

POB

Organization:

2. Date: 5/13/13
Time Custody Received: 13-14-13

Name (Print):

UA

Organization:

3. Date: 5/13/13
Time Custody Received: 1440

Name (Print):

DWR

Organization:

5/13/13
Date: 1200
Time Custody Released:

Date:
Time Custody Released:

Date:
Time Custody Released:

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable☐ Holding Time Exceeded☐ Broken Container☐ Sample Not Cooled☐ Leaked in Transit☐ Insufficient Sample☐ Improper Container

B. Preservatives/Carriers:

☐ Added While Sampling☐ Added in Laboratory☐ Not Added☐ Not Applicable

≤ 0.01 MR/HR

257.12



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0353

Investigator: Tom Hook P O Box 56 Avila Beach CA 93424 Phone Number: 805-545-4409	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: Diablo Canyon NPP / May 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 5/8/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0353-01	Sample ID: R 96065 Sample Type: Drinking Water	Time Collected: 5/7/2013 08:00	Sampling Point: Bio Lab Sink	
K-40	EPA 901.1	-100 +/- 15.4	76.0	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 5-8-13	Lab No. (Leave Blank) 13-0353
	Date & Time Sampled 5/7/13 - 0800	Serial Number R 96065
Collector Information Name: TOM THOOK Dept./Branch: P.O. BOX 56 Address: AVILA BEACH, CA 93424 Telephone No.: (805) 545-4409	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: BIO LAB Sampling Point (s): DW1 System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time _____ ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (LSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89, 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

- | | | | | |
|----|--|--|---------------|---|
| 1. | Date
5/7/13
0800
Time Custody Received | Name (Print)
TOM THOOK
PGK
Organization | Signature
 | Date
5/7/13
1700
Time Custody Released |
| 2. | Date
Time Custody Received | Name (Print)
Organization | Signature | Date
Time Custody Released |
| 3. | Date
5-8-13
10:30
Time Custody Received | Name (Print)
VA
DWRLB
Organization | Signature
 | Date
Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0354

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canoyon NPP / May 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 5/8/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0354-01	Sample ID: R 96051	Time Collected: 5/7/2013 08:00	Sampling Point: Bio Lab Sink	
	Sample Type: Drinking Water			
Tritium	EPA 906.0	-120.1 +/- 147	257	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch
850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

5-8-13

Lab No. (Leave Blank)

13-0354

Date & Time Sampled

5/7/13 - 0800

Serial Number

R 96051

Collector Information

Name:

Dept./Branch:

Address:

Tom Hook
P.O. Box 56
Avila Beach, CA 93424

Telephone No.:

(805) 945-4409

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Sample Information

System Name / Facility:

Sampling Point (s):

P10 LAB

DW1

Billing Agency

☐ DWFOB ()☐ RHB☐ RWQCB ()☐ DTSC☐ DWTPB☐ FDB☐ DWR☐ CDFG☐ EMB☐ Other (Specify)

System No.:

TYPE OF SAMPLE (Check all applicable boxes)

☒ Drinking Water☐ Groundwater☐ Surface Water☐ Wastewater☐ Raw☐ Water Treatment Plant (WTP)☐ Distribution System☐ Point of Use (POU)☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted☐ Air Filters

Date/Time

☐ Seawater☐ Sludge (Semi-solid Samples)

Finishing:

Starting:

Net (M³)☐ Milk☐ Soil/Sediment☐ Wipes☐ Biota (Type):☐ Radon Canister☒ Other: TRITIUM SAMPLE☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added:

Cool/Frozen:

Other:

☐ Field Measurement: mR/hr☐ Radionuclide(s), if known:☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha☐ Gross Beta☐ Gamma Scan☐ Total Uranium☐ Total Beta (LSC)☐ NORM (Gamma)☐ Total Radium☐ Tritium (³H)☐ Isotopic Americium / Curium☐ Radium-226☐ Carbon-14☐ Isotopic Plutonium☐ Radium-228☐ Iodine-131☐ Isotopic Thorium☐ Radium-222☐ Strontium-89, 90☐ Isotopic Uranium☐ Other (Specify):☐ Nickel-63☐ Iron-55

CHAIN OF CUSTODY

1. Date 5/7/13
Time Custody Received 0800

Name (Print)

Organization

Name (Print)

Organization

2. Date
Time Custody Received

3. Date 5-8-13
Time Custody Received 10:30

Name (Print)

Organization

Signature

Signature

Signature

Date

Time Custody Released

Date

Time Custody Released

Date

Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable☐ Holding Time Exceeded☐ Broken Container☐ Sample Not Cooled☐ Leaked in Transit☐ Insufficient Sample☐ Improper Container

B. Preservatives/Carriers:

☐ Added While Sampling☐ Added in Laboratory☐ Not Added☐ Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0355

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / May 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 5/8/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0355-01	Sample ID: R 96068 Sample Type: Surface Water	Time Collected: 5/7/2013 07:30	Sampling Point: Diablo Creek	
K-40	EPA 901.1	30.6 +/- 12.5	57.4	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 5-8-13	Lab No. (Leave Blank) 13-0355
	Date & Time Sampled 5/7/13 - 0730	Serial Number R 96068
Collector Information Name: TOM HOOK Dept./Branch: P.O. BOX 52 Address: AVILA BEACH, CA 93424 Telephone No.: (805) 515-4409	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: DIABLO CREEK Sampling Point (s): 552 System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time _____ ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | |
|----|---------------------------------------|--|---------------|--------------------------------------|
| 1. | Date
5/7/13
0730 | Name (Print)
TOM HOOK
PGIE | Signature
 | Date
5/7/13
1700 |
| | Time Custody Received | Organization | | Time Custody Released |
| 2. | Date | Name (Print) | Signature | Date |
| | Time Custody Received | Organization | | Time Custody Released |
| 3. | Date
5-8-13
10:30 | Name (Print)
UA
DWRLB | Signature
 | Date |
| | Time Custody Received | Organization | | Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable

≤ 0.01 MR/HR



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0356

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / May 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 5/8/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0356-01	Sample ID: R 96055	Time Collected: 5/7/2013	07:30	Sampling Point: Diablo Creek
	Sample Type: Surface Water			
Tritium	EPA 906.0	82.1 +/- 152	257	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

5-8-13

Lab No. (Leave Blank)

13-0356

Date & Time Sampled

5/7/13 - 0730

Serial Number

R 96055

Collector Information

Name:

Dept./Branch:

Address:

TOM HOOK
P.O. BOX 56
AVILA BEACH, CA 93424

Telephone No.: (205) 545-4409

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Sample Information

System Name / Facility:

Sampling Point (s):

DIABLO CREEK
552

Billing Agency

- ☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

System No.:

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing: _____

Starting: _____

Net (M³) _____☐ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type): _____☒ Other: TITANIUM SAMPLE☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. 5/7/13 TOM HOOK 5/7/13
Date 5/7/13 Name (Print) TOM HOOK Date 5/7/13
Time Custody Received _____ Organization _____ Signature _____ Time Custody Released _____
2. W _____ 131081 _____
Date W Name (Print) _____ Date _____
Time Custody Received _____ Organization _____ Signature _____ Time Custody Released _____
3. 5-8-13 UA _____
Date 10:30 Name (Print) DWRLB Date _____
Time Custody Received _____ Organization _____ Signature _____ Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0263

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / April 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/10/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0263-01	Sample ID: R 92270	Time Collected: 4/9/2013	09:57	Sampling Point: Diablo Creek
	Sample Type: Surface Water			
K-40	EPA 901.1	11.8 +/- 17.8	83.4	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 4-10-13	Lab No. (Leave Blank) 13-0263
	Date & Time Sampled 4/9/13 0957	Serial Number R 92270
Collector Information Name: Tom Hook Dept./Branch: P.O. Box 50 Address: AVILA BEACH CA 93424 Telephone No.: (805) 545-4409	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: DIABLO CREEK Sampling Point (s): SS2 System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH-Adjusted
- ☐ Air Filters Date/Time ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☐ Other: _____
- ☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ ☐ Field/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | |
|----|--------------------------------------|---------------------------------|---------------|--------------------------------------|
| 1. | Date
4/9/13 | Name (Print)
TOM HOOK | Signature
 | Date
4/9/13 |
| | Time Custody Received
0957 | Organization
PG&E | | Time Custody Released
1700 |
| 2. | Date | Name (Print) | Signature | Date |
| | Time Custody Received | Organization | | Time Custody Released |
| 3. | Date
4-10-13 | Name (Print)
UA | Signature
 | Date |
| | Time Custody Received
3:30 | Organization
DWR/LB | Signature | Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable
- ≤ 0.01 mR/HR**



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0265

Investigator: Denny Brewer 2156 Sierra Way, San Luis Obispo CA 93401 Phone Number: (805) 781-5555	SLO Co. EHS	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: Diablo Canyon NPP / April 2013		Samples Received by Lab: 4/12/2013	
System No:	Billing Agency: RHB		

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0265-01	Sample ID: R 96017 Sample Type: Raw Water	Time Collected: 4/9/2013 09:57	Sampling Point: Diablo Creek	
Tritium	EPA 906.0	-81.6 +/- 152	264	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

4-10-13

Lab No. (Leave Blank)

13-02645

Date & Time Sampled

4/9/13-0957

Serial Number

R 96017

Collector Information

Name:

Dept./Branch:

Address:

Telephone No.:

Sample Information

System Name / Facility:

Sampling Point (s):

System No.:

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Billing Agency

☐ DWFOB ()☐ DWTPB☐ EMB☐ RHB☐ FDB☐ Other (Specify)☐ RWQCB ()☐ DWR☐ DTSC☐ CDFG

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water☐ Raw☐ Groundwater☐ Water Treatment Plant (WTP)☒ Surface Water☐ Distribution System☐ Wastewater☐ Point of Use (POU)☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted☐ Air Filters

Finishing:

Starting:

Net (M³)

Date/Time

☐ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type):☒ Other: TRITIUM SAMPLE☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added:

iced/Frozen:

Other:

☐ Field Measurement: mR/hr☐ Radionuclide(s), if known:☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha☐ Total Uranium☐ Total Radium☐ Radium-226☐ Radium-228☐ Radon-222☐ Other (Specify):☐ Gross Beta☐ Total Beta (LSC)☒ Tritium (³H)☐ Carbon-14☐ Iodine-131☐ Strontium-89, 90☐ Nickel-63☐ Gamma Scan☐ NORM (Gamma)☐ Isotopic Americium / Curium☐ Isotopic Plutonium☐ Isotopic Thorium☐ Isotopic Uranium☐ Iron-55

CHAIN OF CUSTODY

1. 4/9/13

Date

0957

Time Custody Received

Name (Print)

PG-E

Organization

Signature

Date

1700

Time Custody Released

2. Date

Name (Print)

Organization

Signature

Date

Time Custody Released

3. Time Custody Received

Date

4-10-13

3:30

Time Custody Received

Name (Print)

UA

Organization

DWRLB

Signature

Signature

Date

Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable☐ Holding Time Exceeded☐ Broken Container☐ Sample Not Cooled☐ Leaked in Transit☐ Insufficient Sample☐ Improper Container

B. Preservatives/Carriers:

☐ Added While Sampling☐ Added in Laboratory☐ Not Added☐ Not Applicable

C 0.01 MR/HR



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0303

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / April 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/23/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0303-01	Sample ID: R 96027 Sample Type: Seawater	Time Collected: 4/22/2013 09:45	Sampling Point: Outfall Water	
K-40	EPA 901.1	368 +/- 23.0	83.6	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

4-23-13

Lab No. (Leave Blank)

13-0303

Date & Time Sampled

4/22/13 - 0945

Serial Number

R 96027

Collector Information

Name: TON HOOK
Dept./Branch: P.O. BOX 56
Address: AVILA BEACH, CA 93424
Telephone No.: (805) 545-4409

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility: DCPP OUTFALL
Sampling Point (s): OUT

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

System No.:

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters ☐ Date/Time ☒ Seawater ☐ Sludge (Semi-solid Samples)
Finishing: _____ ☐ Milk ☐ Soil/Sediment
Starting: _____ ☐ Wipes ☐ Biota (Type): _____
Net (M³) _____ ☐ Radon Canister ☐ Other: _____
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. 4/22/13 TON HOOK 4/22/13
Date 0945 Name (Print) TON HOOK Date 1700
Time Custody Received _____ Organization _____ Signature _____ Time Custody Released _____
2. _____ Name (Print) _____ Date _____
Time Custody Received _____ Organization _____ Signature _____ Time Custody Released _____
3. 4-23-13 UA _____
Date 13:45 Name (Print) DWRLB Date _____
Time Custody Received _____ Organization _____ Signature _____ Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0304

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / April 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/23/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0304-01	Sample ID: R 92262	Time Collected: 4/22/2013 09:45	Sampling Point: Diablo Canyon	
	Sample Type: Seawater			
Tritium	EPA 906.0	2.04 +/- 154	264	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch
850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

4-23-13

Lab No. (Leave Blank)

13-0304

Date & Time Sampled

4/22/13 - 0745

Serial Number

R 92262

Collector Information

Name: TOM HOOK
Dept./Branch: P.O. BOX 56
Address: AVILA BEACH, CA 93424

Telephone No.: (805) 545-4409

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility: DCPD OUTFALL
Sampling Point (s): OUT

System No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters ☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing: _____ Date/Time: _____
Starting: _____
Net (M³) _____
☐ Air Charcoal Cartridge ☐ Milk ☐ Soil/Sediment
☐ Wipes ☐ Biota (Type): _____
☐ Radon Canister ☒ Other: TRITIUM SAMPLE

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Ice/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☒ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): DCPD ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. Date: 4/22/13 Name (Print): TOM HOOK
Time Custody Received: 0745 Organization: PG&E Signature: [Signature] Date: 4/22/13
Time Custody Released: 1700
2. Date: _____ Name (Print): _____
Time Custody Received: _____ Organization: _____ Signature: [Signature] Date: 4/23/13
Time Custody Released: _____
3. Date: 4-23-13 Name (Print): VA
Time Custody Received: 3:45 Organization: DWRLB Signature: [Signature] Date: 4/23/13
Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:
☒ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0261

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / April 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/10/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0261-01	Sample ID: R 92273	Time Collected: 4/9/2013 09:34	Sampling Point: Bio Lab Sink	
	Sample Type: Drinking Water			
K-40	EPA 901.1	35.5 +/- 13.0	59.4	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received <u>4-10-13</u>	Lab No. (Leave Blank) <u>13-0201</u>
	Date & Time Sampled <u>4/9/13-0934</u>	Serial Number R 92273
Collector Information Name: <u>Tom Hook</u> Dept./Branch: <u>P.O. Box 50</u> Address: <u>ALILA BEACH, CA 93424</u> Telephone No.: <u>(805) 315-4409</u>	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: <u>BIO LAB</u> Sampling Point (s): <u>DW1</u> System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- | | | | |
|---|--|--|--|
| <input checked="" type="checkbox"/> Drinking Water | <input type="checkbox"/> Groundwater | <input type="checkbox"/> Surface Water | <input type="checkbox"/> Wastewater |
| <input type="checkbox"/> Raw | <input type="checkbox"/> Water Treatment Plant (WTP) | <input type="checkbox"/> Distribution System | <input type="checkbox"/> Point of Use (POU) |
| <input type="checkbox"/> Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted | | | |
| <input type="checkbox"/> Air Filters | Date/Time | <input type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input type="checkbox"/> Milk | <input type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): _____ |
| Net (M ³) _____ | _____ | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Cooled/Frozen: _____ Other: _____
- ☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
- ☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input checked="" type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (LSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89, 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

- | | | | |
|---|--|---------------------------------|---|
| 1. <u>4/9/13</u>
Date
<u>0934</u>
Time Custody Received | <u>Tom Hook</u>
Name (Print)
<u>PG&K</u>
Organization | <u>[Signature]</u>
Signature | <u>4/9/13</u>
Date
<u>1700</u>
Time Custody Released |
| 2. _____
Date
_____ Time Custody Received | _____
Name (Print)
_____ Organization | _____
Signature | _____
Date
_____ Time Custody Released |
| 3. <u>4-10-13</u>
Date
<u>3:30</u>
Time Custody Received | <u>JA</u>
Name (Print)
<u>DWRLB</u>
Organization | <u>[Signature]</u>
Signature | _____
Date
_____ Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: ≤ 0.01 MR/HR
- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Acceptable | <input type="checkbox"/> Broken Container | <input type="checkbox"/> Leaked in Transit | <input type="checkbox"/> Improper Container |
| <input type="checkbox"/> Holding Time Exceeded | <input type="checkbox"/> Sample Not Cooled | <input type="checkbox"/> Insufficient Sample | |
- B. Preservatives/Carriers:
- | | | | |
|---|--|------------------------------------|---|
| <input type="checkbox"/> Added While Sampling | <input type="checkbox"/> Added in Laboratory | <input type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |
|---|--|------------------------------------|---|



State of California - Health and Human Services Agency
California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0262

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / April 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/10/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0262-01	Sample ID: R 96018	Time Collected: 4/9/2013 09:34	Sampling Point: Bio Lab Sink	
	Sample Type: Drinking Water			
Tritium	EPA 906.0	-71.4 +/- 152	264	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

4-10-13

Lab No. (Leave Blank)

13-0262

Date & Time Sampled

4/9/13-0934

Serial Number

R 96018

Collector Information

Name:

Dept./Branch:

Address:

TOM HOOK
P.O. BOX 56
AVILA BEACH, CA 93424

Telephone No.:

(805) 545-4409

Sample Information

System Name / Facility:

Sampling Point (s):

BIO LAB
DW1

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Billing Agency

- ☒ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

System No.:

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing:

Starting:

Net (M³)☐ Air Charcoal Cartridge☐ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type): _____☒ Other: TITANIUM SAMPLE

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☒ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

No.	Date	Time Custody Received	Name (Print)	Organization	Signature	Date	Time Custody Released
1.	4/9/13	0934	TOM HOOK	PG&E	[Signature]	4/9/13	1700
2.							
3.	4-10-13	3:30	UA	DWRLB	[Signature]		

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency
California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0190

Investigator: Tom Hook P O Box 56 Avila Beach CA 93424 Phone Number: 805-545-4409	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: Diablo Canyon NPP / March 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 3/12/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0190-01	Sample ID: R 96117 Sample Type: Seawater	Time Collected: 3/11/2013 07:30	Sampling Point: Outfall Water	
K-40	EPA 901.1	357 +/- 18.2	62.5	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

3-12-13

Lab No. (Leave Blank)

13-0190

Date & Time Sampled

3/11/13 0730

Serial Number

R 96117

Collector Information

Name: Tom Hook
Dept./Branch: P.O. Box 56
Address: AVILA BEACH, CA 93424
Telephone No.: (805) 545-4409

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility: DCPP OUTFALL
Sampling Point (s): OUT

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

System No.:

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters ☐ Date/Time ☒ Seawater ☐ Sludge (Semi-solid Samples)
Finishing: _____ ☐ Milk ☐ Soil/Sediment
Starting: _____ ☐ Wipes ☐ Biota (Type): _____
Net (M³) _____ ☐ Radon Canister ☐ Other: _____
- ☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | |
|----|---|--|---------------------------------|--|
| 1. | Date
<u>3/11/13</u>
Time Custody Received
<u>0730</u> | Name (Print)
<u>TOM HOOK</u>
Organization
<u>PG&E</u> | Signature
<u>[Signature]</u> | Date
<u>3/11/13</u>
Time Custody Released
<u>1700</u> |
| 2. | Date
Time Custody Received | Name (Print)
Organization | Signature | Date
Time Custody Released |
| 3. | Date
<u>3-12-13</u>
Time Custody Received
<u>10:30</u> | Name (Print)
<u>UA</u>
Organization
<u>DWRLB</u> | Signature
<u>[Signature]</u> | Date
Time Custody Released |

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

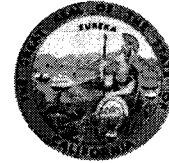
- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency
California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0191

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / March 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 3/12/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0191-01	Sample ID: R 92356	Time Collected: 3/11/2013 07:30	Sampling Point: Outfall Water	
	Sample Type: Seawater			
Tritium	EPA 906.0	-18.3 +/- 151	264	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 3-12-13	Lab No. (Leave Blank) 13-0191
	Date & Time Sampled 3/11/13 - 0730	Serial Number R 92356
Collector Information Name: TOM HOOK Dept./Branch: P.O. BOX 50 Address: AVILA BEACH, CA 93424 Telephone No.: (805) 345-4409	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: DCPP OUTFALL Sampling Point (s): OUT System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time _____ ☒ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☒ Other: **TRITIUM SAMPLE**
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (TSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89, 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

- | | | |
|--|--|---|
| 1. 3/11/13
Date
0730
Time Custody Received | TOM HOOK
Name (Print)
PG & F
Organization | 3/11/13
Date
1700
Time Custody Released |
| 2. 01
Date
Time Custody Received | Name (Print)
Organization | Date
Time Custody Released |
| 3. 3-12-13
Date
10:30
Time Custody Received | UA
Name (Print)
DWR LAB
Organization | Antonia M. Ali
Signature
Date
Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0181

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / March 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 3/7/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0181-01	Sample ID: R 92269	Time Collected: 3/6/2013	15:00	Sampling Point: Diablo Creek
	Sample Type: Surface Water			
K-40	EPA 901.1	7.59 +/- 16.2	75.8	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 3-7-13	Lab No. (Leave Blank) 13-0181
	Date & Time Sampled 3/6/13 1500	Serial Number R 92269
Collector Information Name: Tom Hook Dept./Branch: P.O. Box 56 Address: MILWAUKEE, CA 93424 Telephone No.: (205) 545-4409	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: DIABLO CREEK Sampling Point (s): 552 System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☒ Distribution System ☐ Point of Use (POU)
- ☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters ☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing: _____ Date/Time: _____
☐ Milk
Starting: _____
☐ Wipes ☐ Biota (Type): _____
Net (M³) _____
☐ Radon Canister ☐ Other: _____
- ☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ / Cold/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input checked="" type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (LSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89, 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

- | | | |
|---|---|---|
| 1. Date 3/6/13
Time Custody Received 1500 | Name (Print) Tom Hook
Organization PG&E
Signature _____ | Date 3/6/13
Time Custody Released 1700 |
| 2. Date _____
Time Custody Received _____ | Name (Print) _____
Organization _____
Signature _____ | Date _____
Time Custody Released _____ |
| 3. Date 3-7-13
Time Custody Received 11:30 | Name (Print) UA
Organization DWR/CB
Signature _____ | Date _____
Time Custody Released _____ |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: **≤ 0.01 mR/hr**
- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Acceptable | <input type="checkbox"/> Broken Container | <input type="checkbox"/> Leaked in Transit | <input type="checkbox"/> Improper Container |
| <input type="checkbox"/> Holding Time Exceeded | <input type="checkbox"/> Sample Not Cooled | <input type="checkbox"/> Insufficient Sample | |
- B. Preservatives/Carriers:
- | | | | |
|---|--|------------------------------------|---|
| <input type="checkbox"/> Added While Sampling | <input type="checkbox"/> Added in Laboratory | <input type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |
|---|--|------------------------------------|---|



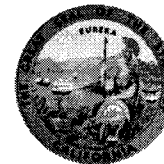
State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0182

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / March 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 3/7/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0182-01	Sample ID: R 96101	Time Collected: 3/6/2013	15:00	Sampling Point: Diablo Creek
	Sample Type: Surface Water			
Tritium	EPA 906.0	-51.0 +/- 152	264	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

3-7-13

Lab No. (Leave Blank)

13-0182

Date & Time Sampled

3/6/13 1500

Serial Number

R-96101

Collector Information

Name: Tom Hook
Dept./Branch: PO Box 56
Address: AVILA BEACH, CA 93424
Telephone No.: (805) 555-4409

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility:
Sampling Point (s):

DIABLO CREEK
552

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ EDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

System No.:

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing:

Starting:

Net (M³)☐ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type):☐ Other: Tritium Sample☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☒ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1.	Date <u>3/6/13</u>	Name (Print) <u>Tom Hook</u>	Signature <u>[Signature]</u>	Date <u>3/6/13</u>
	Time Custody Received <u>1500</u>	Organization <u>PO Box 56</u>		Time Custody Released <u>1700</u>
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____		Time Custody Released _____
3.	Date <u>3-7-13</u>	Name (Print) <u>VA</u>	Signature <u>[Signature]</u>	Date _____
	Time Custody Received <u>11:30</u>	Organization <u>DWR 13</u>		Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable

4.01 mR/hr



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0179

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / March 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 3/7/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0179-01	Sample ID: R 96013	Time Collected: 3/6/2013 14:13	Sampling Point: Bio Lab Sink	
	Sample Type: Drinking Water			
K-40	EPA 901.1	17.5 +/- 17.3	80.7	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

3-7-13

Lab No. (Leave Blank)

13-0179

Date & Time Sampled

3/6/13 - 1413

Serial Number

R 96013

Collector Information

Name:

Dept./Branch:

Address:

TOM HOOK
PO Box 50
MILWAUKEE, CA 93424

Telephone No.: (205) 545-4409

Sample Information

System Name / Facility:

Sampling Point (s):

BIO LAB

DW1

System No.:

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Billing Agency

☐ DWFOB ()☐ RHB☐ RWQCB ()☐ DTSC☐ DWTPB☐ FDB☐ DWR☐ CDFG☐ EMB☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

☐ Seawater☐ Sludge (Semi-solid Samples)

Finishing: _____

☐ Milk☐ Soil/Sediment

Starting: _____

☐ Wipes☐ Biota (Type): _____Net (M³) _____☒ Radon Canister☐ Other: _____☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. 3/6/13 TOM HOOK 3/6/13
Date Name (Print) Date
1413 PGSE 1700
Time Custody Received Organization Signature Time Custody Released
2. _____
Date Name (Print) Date
Time Custody Received Organization Signature Time Custody Released
3. 3-7-13 VA _____
Date Name (Print) Date
13:30 DWRLB _____
Time Custody Received Organization Signature Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable

≤ 0.01 MR/HR



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0180

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / March 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 3/7/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0180-01	Sample ID: R 96003	Time Collected: 3/6/2013	14:13	Sampling Point: Bio Lab Sink
	Sample Type: Drinking Water			
Tritium	EPA 906.0	-88.4 +/- 152	264	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
 Richmond, CA 94804
 510-620-2911

Date Received

3-7-13

Lab No. (Leave Blank)

13-0180

Date & Time Sampled

3/6/13-1413

Serial Number

R 96003

Collector Information

Name: TOM HOOK
 Dept./Branch: P.O. BOX 50
 Address: AVILA CERRITA, CA 93424

Telephone No.: (205) 815-4409

Reporting Information

Name:
 Dept./Branch:
 Address:

Telephone No.:

Sample Information

System Name / Facility:
 Sampling Point (s):

BIO LAB

DW1

System No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ Date/Time: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☒ Other: TRITIUM SAMPLE
- ☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ ☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☒ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. 3/6/13 TOM HOOK 3/6/13
 Date Name (Print) Date
1413 PB:K 1700
 Time Custody Received Organization Signature Time Custody Released
2. _____ _____ _____
 Date Name (Print) Date
 Time Custody Received Organization Signature Time Custody Released
3. 3-7-13 UA _____
 Date Name (Print) Date
11:30 DWRLB _____
 Time Custody Received Organization Signature Time Custody Released

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: 4.001 MR / HR
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0124

Investigator: Rick Treinen PO Box 56 Avila Beach CA 93424 Phone Number: 805-545-6481	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: Diablo Canyon NPP / February 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 2/14/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0124-01	Sample ID: R 96011 Sample Type: Surface Water	Time Collected: 2/13/2013 14:20	Sampling Point: Diablo Creek	
K-40	EPA 901.1	3.58 +/- 16.7	78.4	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

2-14-13

Lab No. (Leave Blank)

13-0124

Date & Time Sampled

2/13/13 1420

Serial Number

R 96011

Collector Information

Name: Rick Treinen
Dept./Branch: PO Box 56
Address: Avila Beach, CA 93424

Telephone No.: 805-545-6481

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility:
Sampling Point (s):

DIABLO CREEK
SS2

System No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

☐ Seawater☐ Sludge (Semi-solid Samples)

Finishing: _____

☐ Milk☐ Soil/Sediment

Starting: _____

☐ Wipes☐ Biota (Type): _____Net (M³) _____☐ Radon Canister☐ Other: _____☐ Air Charcoal Cartridge

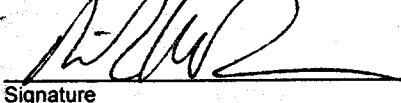
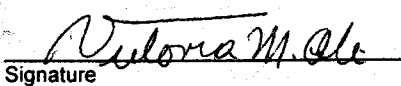
COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1.	Date 2/13/13 1420 Time Custody Received	Name (Print) Rick Treinen PG#E Organization	Signature 	Date 2/13/13 1700 Time Custody Released
2.	Date _____ Time Custody Received	Name (Print) _____ Organization	Signature _____	Date _____ Time Custody Released
3.	Date 2-14-13 14:10 Time Custody Received	Name (Print) UA DWRLB Organization	Signature 	Date _____ Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

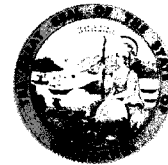
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency
California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0125

Investigator: Rick Treinen PO Box 56 Avila Beach CA 93424 Phone Number: 805-545-6481	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: Diablo Canyon NPP / February 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 2/14/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0125-01	Sample ID: R 96006 Sample Type: Surface Water	Time Collected: 2/13/2013 14:20	Sampling Point: Diablo Creek	
Tritium	EPA 906.0	-82.30 +/- 147.89	257.65	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

2-14-13

Lab No. (Leave Blank)

13-0125

Date & Time Sampled

2/13/13 1420

Serial Number

R 96006

Collector Information

Name: Rick Treinen
Dept./Branch: PO Box 56
Address: Avila Beach, CA 93424

Telephone No.: 805-545-6481

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility: DIABLO CREEK
Sampling Point (s): 552

System No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing: _____

Starting: _____

Net (M³) _____☐ Air Charcoal Cartridge☐ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type): _____☒ Other: Tritium Sample

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☒ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1.	Date 2/13/13 1420	Name (Print) Rick Treinen PG&E	Signature 	Date 2/13/13 1700
	Time Custody Received	Organization		Time Custody Released
2.	Date	Name (Print)	Signature	Date
	Time Custody Received	Organization		Time Custody Released
3.	Date 2-14-13 1410	Name (Print) UA DWR/B	Signature 	Date
	Time Custody Received	Organization		Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☒ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



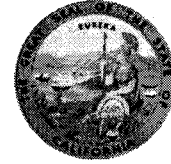
State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0122

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / February 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 2/14/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0122-01	Sample ID: R 96015	Time Collected: 2/13/2013 14:03	Sampling Point: Bio Lab Sink	
	Sample Type: Surface Water			
	Drinking			
K-40	EPA 901.1	22.7 +/- 12.2	56.4	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 2-14-13	Lab No. (Leave Blank) 13-0122
	Date & Time Sampled 2/13/13 1403	Serial Number R 96015
Collector Information Name: Rich Treinen Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424 Telephone No.: 805-545-6881	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: BIO LAB Sampling Point (s): DW1 System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time ☐ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____
 Starting: _____
 Net (M³) _____
☐ Air Charcoal Cartridge
- ☐ Milk ☐ Soil/Sediment
☐ Wipes ☐ Biota (Type): _____
☐ Radon Canister ☐ Other: _____

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (T₂H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | |
|----|-------------------------|--------------------------------------|---------------|-------------------------|
| 1. | Date
2/13/13
1403 | Name (Print)
Rich Treinen
P66E | Signature
 | Date
2/13/13
1700 |
| | Time Custody Received | Organization | Signature | Time Custody Released |
| 2. | Date | Name (Print) | Signature | Date |
| | Time Custody Received | Organization | Signature | Time Custody Released |
| 3. | Date
2-14-13
4:10 | Name (Print)
VA
DWRLB | Signature
 | Date |
| | Time Custody Received | Organization | Signature | Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0123

Investigator: Rick Treinen PO Box 56 Avila Beach CA 93424 Phone Number: 805-545-6481	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: Diablo Canyon NPP / February 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 2/14/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0123-01	Sample ID: R 96002	Time Collected: 2/13/2013 14:03	Sampling Point: Bio Lab Sink	
	Sample Type: Surface Water <i>Drinking</i>			
Tritium	EPA 906.0	-16.06 +/- 149.61	257.65	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 2-14-13	Lab No. (Leave Blank) 13-0123
	Date & Time Sampled 2/13/13 1403	Serial Number R 96002
Collector Information Name: Rick Treinen Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424 Telephone No.: 805-545-6481	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: BIO LAB Sampling Point (s): DWI System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

- | | | |
|---|--|---|
| <input type="checkbox"/> Air Filters
Finishing: _____
Starting: _____
Net (M ³) _____
<input type="checkbox"/> Air Charcoal Cartridge | Date/Time _____
<input type="checkbox"/> Seawater
<input type="checkbox"/> Milk
<input type="checkbox"/> Wipes
<input type="checkbox"/> Radon Canister | <input type="checkbox"/> Sludge (Semi-solid Samples)
<input type="checkbox"/> Soil/Sediment
<input type="checkbox"/> Biota (Type):
<input checked="" type="checkbox"/> Other: Tritium Sample |
|---|--|---|

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|---|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (LSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input checked="" type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89, 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

- | | | | | | |
|----|-------------------------|--------------------------------------|--------------------|-------------------------|-----------------------|
| 1. | Date
2/13/13
1403 | Name (Print)
Rick Treinen
R64E | Signature
 | Date
2/13/13
1700 | Time Custody Released |
| 2. | Date
_____ | Name (Print)
_____ | Signature
_____ | Date
_____ | Time Custody Released |
| 3. | Date
2-14-13
4:10 | Name (Print)
UA
DWR LAB | Signature
 | Date
_____ | Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: $\leq 0.01 \text{ mR/hr}$
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0110

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / February 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 2/8/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0110-01	Sample ID: R 92348 Sample Type: Seawater	Time Collected: 2/7/2013 10:05	Sampling Point: Outfall Water	
K-40	EPA 901.1	347 +/- 21.3	80.3	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 2-8-13	Lab No. (Leave Blank) 13-0110
	Date & Time Sampled 2/7/13 1005	Serial Number R 92348
Collector Information Name: Rick Treinen Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424 Telephone No.: 805-545-6481	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: DCPP OUTFALL Sampling Point (s): OUT System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- ☐ Air Filters Date/Time ☒ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type): _____
 Net (M³) _____ ☐ Radon Canister ☐ Other: _____
- ☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Ice/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | |
|----|--------------------------------|------------------------------|---------------|-------------------------------|
| 1. | Date
2/7/13 | Name (Print)
Rick Treinen | Signature
 | Date
2/7/13 |
| | Time Custody Received
1005 | Organization
PG&E | | Time Custody Released
1700 |
| 2. | Date | Name (Print) | Signature | Date |
| | Time Custody Received | Organization | | Time Custody Released |
| 3. | Date
2-8-13 | Name (Print)
UA | Signature
 | Date |
| | Time Custody Received
13:30 | Organization
DWRCB | | Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:
- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:
- ☐ Added While Sampling ☐ Added in Laboratory ☒ Not Added ☐ Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0111

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach CA 93424		Sacramento CA 95814-5006	
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / February 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 2/8/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0111-01	Sample ID: R 96106	Time Collected: 2/7/2013 10:05	Sampling Point: Outfall Water	
	Sample Type: Seawater			
Tritium	EPA 906.0	-134.49 +/- 146.52	257.65	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received <u>2-8-13</u>	Lab No. (Leave Blank) <u>13-0111</u>
	Date & Time Sampled <u>2/7/13 1005</u>	Serial Number <u>R 96106</u>
Collector Information: Name: <u>Rich Treinen</u> Dept./Branch: <u>PO Box 56</u> Address: <u>Avila Beach, CA 93424</u> Telephone No.: <u>805-545-6481</u>	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: <u>DCPP OUTFALL</u> Sampling Point (s): <u>OUT</u> System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- ☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

- ☐ Air Filters Date/Time ☒ Seawater ☐ Sludge (Semi-solid Samples)
 Finishing: _____ ☐ Milk ☐ Soil/Sediment
 Starting: _____ ☐ Wipes ☐ Biota (Type):
 Net (M³) _____ ☐ Radon Canister ☒ Other: Tritium Sample
☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

- | | | | | |
|----|---------------------------------------|-------------------------------------|---------------------------------|--------------------------------------|
| 1. | Date
<u>2/7/13</u> | Name (Print)
<u>Rich Treinen</u> | Signature
<u>[Signature]</u> | Date
<u>2/7/13</u> |
| | Time Custody Received
<u>1005</u> | Organization
<u>PG&E</u> | | Time Custody Released
<u>1700</u> |
| 2. | Date | Name (Print) | Signature | Date |
| | Time Custody Received | Organization | | Time Custody Released |
| 3. | Date
<u>2-8-13</u> | Name (Print)
<u>U4</u> | Signature
<u>[Signature]</u> | Date |
| | Time Custody Received
<u>13:30</u> | Organization
<u>DWR/LB</u> | | Time Custody Released |

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample
- B. Preservatives/Carriers:**
☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0067

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / January 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 1/24/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0067-01	Sample ID: R 96122	Time Collected: 1/23/2013 09:05	Sampling Point: Bio Lab Sink	
	Sample Type: Drinking Water			
K-40	EPA 901.1	1.40 +/- 17.0	79.9	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

1-24-13

Lab No. (Leave Blank)

13-0067

Date & Time Sampled

1/23/13-0905

Serial Number

R 96122

Collector Information

Name: Rick Treinen
Dept./Branch: PO Box 56
Address: Avila Beach, CA 93424

Telephone No.: 805-545-6481

Sample Information

System Name / Facility: BIO LAB
Sampling Point (s): DW1

System No.:

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing: _____

Starting: _____

Net (M³) _____☐ Air Charcoal Cartridge☐ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type): _____☐ Other: _____

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. 1/23/13 Rick Treinen 1/23/13
Date Name (Print) Date
0905 DEBE 1700
Time Custody Received Organization Signature Time Custody Released
2. _____
Date Name (Print) _____
Time Custody Received Organization Signature _____
Time Custody Released
3. 1-24-13 UA _____
Date Name (Print) Date
11:00 DWRCB _____
Time Custody Received Organization Signature _____
Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0068

Investigator: Rick Treinen	RHB	Requestor: Roger Lupo	RHB
PO Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-6481		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / January 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 1/24/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0068-01	Sample ID: R 96133	Time Collected: 1/23/2013 09:05	Sampling Point: Bio Lab Sink	
	Sample Type: Drinking Water			
Tritium	EPA 906.0	-104.38 +/- 147.31	257.65	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

1-24-13

Lab No. (Leave Blank)

13 0068

Date & Time Sampled

1/23/13 - 0905

Serial Number

R 96133

Collector Information

Name: Rich Treinen
Dept./Branch: PO Box 56
Address: Avila Beach, CA 93424

Telephone No.: 805 SAS-6481

Sample Information

System Name / Facility: BIO LAB
Sampling Point (s): DW1

System No.:

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

- ☒ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing: _____

Starting: _____

Net (M³) _____☐ Air Charcoal Cartridge☐ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type): _____☒ Other: Tritium Sample

COMMENTS: (Cautions, etc.):

- ☐ Field Treatment: Preservatives added: _____
☐ Field Measurement: _____ mR/hr
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- ☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☒ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1. <u>1/23/13</u> Date <u>0905</u> Time Custody Received	<u>Rich Treinen</u> Name (Print) <u>RG&E</u> Organization	<u>[Signature]</u> Signature	<u>1/23/13</u> Date <u>1700</u> Time Custody Released
2. _____ Date Time Custody Received	_____ Name (Print) Organization	_____ Signature	_____ Date Time Custody Released
3. <u>1-24-13</u> Date <u>11:00</u> Time Custody Received	<u>UA</u> Name (Print) <u>DWRB</u> Organization	<u>[Signature]</u> Signature	_____ Date Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

- ☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

- ☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



State of California - Health and Human Services Agency
California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0065

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / January 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 1/24/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0065-01	Sample ID: R 96124	Time Collected: 1/23/2013 08:45	Sampling Point: Diablo Creek	
	Sample Type: Surface Water			
K-40	EPA 901.1	10.5 +/- 12.9	60.1	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch
 850 Marina Bay Parkway, G164
 Richmond, CA 94804
 510-620-2911

Date Received

1-24-13

Lab No. (Leave Blank)

13-0065

Date & Time Sampled

1/23/13-0845

Serial Number

R 96124

Collector Information

Name: Tom Hook
 Dept./Branch: P.O. Box 56
 Address: AVILA BEACH, CA 93424

Telephone No. (805) 545-4409

Reporting Information

Name:
 Dept./Branch:
 Address:

Telephone No.:

Sample Information

System Name / Facility: DIABLO CREEK
 Sampling Point (s): 552

System No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing: _____

Starting: _____

Net (M³) _____☐ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type): _____☐ Other: _____☐ Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☒ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1.	Date <u>1/23/13</u> <u>0845</u>	Name (Print) <u>Tom Hook</u> <u>PGSK</u>	Signature <u>[Signature]</u>	Date <u>1/23/13</u> <u>1700</u>
	Time Custody Received	Organization		Time Custody Released
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received	Organization		Time Custody Released
3.	Date <u>1-24-13</u> <u>11:00</u>	Name (Print) <u>UA</u> <u>DWRLB</u>	Signature <u>[Signature]</u>	Date _____
	Time Custody Received	Organization		Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable

≤ 0.01 MR/HR



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0066

Investigator: Tom Hook P O Box 56 Avila Beach CA 93424 Phone Number: 805-545-4409	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: Diablo Canyon NPP / January 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 1/24/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0066-01	Sample ID: R 96127 Sample Type: Surface Water	Time Collected: 1/23/2013 08:45	Sampling Point: Diablo Creek	
Tritium	EPA 906.0	-28.10 +/- 149.30	257.65	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

1-24-13

Lab No. (Leave Blank)

13-0066

Date & Time Sampled

1/23/13 - 0845

Serial Number

R 96127

Collector Information

Name: TOM HOOK
Dept./Branch: P.O. BOX 50
Address: AVILA BEACH, CA 93424

Telephone No.: (705) 515-4409

Sample Information

System Name / Facility: DIABLO CREEK
Sampling Point (s): 552

System No.:

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water ☐ Groundwater ☒ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing: _____

Starting: _____

Net (M³) _____☐ Air Charcoal Cartridge☐ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type): _____☒ Other: TRITIUM SAMPLE

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____

Iced/Frozen: _____

Other: _____

☐ Field Measurement: _____ mR/hr☐ Radionuclide(s), if known: _____☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☒ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1.	Date 1/23/13 0845	Name (Print) TOM HOOK P.O. BOX 50	Signature 	Date 1/23/13 0700
	Time Custody Received	Organization P.O. BOX 50	Signature	Time Custody Released
2.	Date	Name (Print)	Signature	Date
	Time Custody Received	Organization	Signature	Time Custody Released
3.	Date 1-24-13 11:00	Name (Print) JA DWRIB	Signature 	Date
	Time Custody Received	Organization	Signature	Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable

< 0.01 MR/HR



State of California - Health and Human Services Agency

California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0031

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach	CA 93424	Sacramento	CA 95814-5006
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / January 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 1/15/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0031-01	Sample ID: R 96119 Sample Type: Seawater	Time Collected: 1/14/2013 07:40	Sampling Point: Outfall Water	
K-40	EPA 901.1	353 +/- 17.5	58.7	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

1-15-13

Lab No. (Leave Blank)

13-0031

Date & Time Sampled

1/14/13 0740

Serial Number

R 96119

Collector Information

Name:

Dept./Branch:

Address:

Tom Hook
P.O. Box 56
Avila Beach, CA 93424

Telephone No.: (805) 545-4409

Sample Information

System Name / Facility:

Sampling Point (s):

DCPP OUTFALL
OUT

System No.:

Reporting Information

Name:

Dept./Branch:

Address:

Telephone No.:

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing: _____

Starting: _____

Net (M³) _____☐ Air Charcoal Cartridge☒ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type): _____☐ Other: _____

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
☐ Field Measurement: _____ mR/hr ☐ Radionuclide(s), if known: _____
☐ Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1.	Date 1/14/13 0740	Name (Print) Tom Hook PG SE	Signature 	Date 1/14/13 1700
	Time Custody Received	Organization		Time Custody Released
2.	Date	Name (Print)	Signature	Date
	Time Custody Received	Organization		Time Custody Released
3.	Date 1-15-13 11:30	Name (Print) NA DWR CB	Signature 	Date
	Time Custody Received	Organization		Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0032

Investigator: Tom Hook	RHB	Requestor: Roger Lupo	RHB
P O Box 56		CDPH - RHB, 1500 Capitol Av., MS 7610	
Avila Beach CA 93424		Sacramento CA 95814-5006	
Phone Number: 805-545-4409		Phone Number: 916-440-7955	
Site/Project Name: Diablo Canyon NPP / January 2013			
System No:	Billing Agency: RHB	Samples Received by Lab: 1/15/2013	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0032-01	Sample ID: R 96128 Sample Type: Seawater	Time Collected: 1/14/2013 07:40	Sampling Point: Outfall Water	
Tritium	EPA 906.0	-92.34 +/- 147.63	257.65	pCi/L

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, G164
Richmond, CA 94804
510-620-2911

Date Received

1-15-13

Lab No. (Leave Blank)

13-0032

Date & Time Sampled

1/14/13 0740

Serial Number

R 96128

Collector Information

Name: Tom Hook
Dept./Branch: P.O. Box 56
Address: AVILA BEACH, CA 93424
Telephone No.: (705) 575-4109

Reporting Information

Name:
Dept./Branch:
Address:

Telephone No.:

Sample Information

System Name / Facility: DUPP OUTFALL
Sampling Point (s): DUT

Billing Agency

☐ DWFOB () ☐ RHB ☐ RWQCB () ☐ DTSC
☐ DWTPB ☐ FDB ☐ DWR ☐ CDFG
☐ EMB ☐ Other (Specify) _____

System No.:

TYPE OF SAMPLE (Check all applicable boxes)

☐ Drinking Water ☐ Groundwater ☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

☐ Air Filters

Date/Time

Finishing: _____

Starting: _____

Net (M³) _____☐ Air Charcoal Cartridge☒ Seawater☐ Milk☐ Wipes☐ Radon Canister☐ Sludge (Semi-solid Samples)☐ Soil/Sediment☐ Biota (Type): _____☒ Other: Tritium Sample

COMMENTS: (Cautions, etc.):

☐ Field Treatment: Preservatives added: _____
☐ Field Measurement: _____ mR/hr
☐ Rush/Priority (should be prearranged and have supervisory approval)

Cooled/Frozen: _____

Other: _____

☐ Radionuclide(s), if known: _____

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

☐ Gross Alpha ☐ Gross Beta ☐ Gamma Scan
☐ Total Uranium ☐ Total Beta (LSC) ☐ NORM (Gamma)
☐ Total Radium ☐ Tritium (³H) ☐ Isotopic Americium / Curium
☐ Radium-226 ☐ Carbon-14 ☐ Isotopic Plutonium
☐ Radium-228 ☐ Iodine-131 ☐ Isotopic Thorium
☐ Radon-222 ☐ Strontium-89, 90 ☐ Isotopic Uranium
☐ Other (Specify): _____ ☐ Nickel-63 ☐ Iron-55

CHAIN OF CUSTODY

1.	Date <u>1/14/13</u>	Name (Print) <u>Tom Hook</u>	Signature <u>[Signature]</u>	Date <u>1/14/13</u>
	Time Custody Received <u>0740</u>	Organization <u>PLK</u>		Time Custody Released <u>1700</u>
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received <u>1-15-13</u>	Organization <u>JA</u>		Time Custody Released _____
3.	Date <u>1-30-13</u>	Name (Print) <u>DUPP</u>	Signature <u>[Signature]</u>	Date _____
	Time Custody Received _____	Organization _____		Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐ Insufficient Sample

B. Preservatives/Carriers:

☐ Added While Sampling ☐ Added in Laboratory ☐ Not Added ☐ Not Applicable